ASPECTS OF COMPATIBILIZATION BETWEEN THE LEGISLATION REGARDING AGRICULTURAL EXPLOITATIONS IN ROMANIA AND EUROPEAN UNION

ASPECTE ALE COMPATIBILIZĂRII LEGISLAȚIEI PRIVIND EXPLOATAȚIILE AGRICOLE ÎN ROMÂNIA ȘI UNIUNEA EUROPEANĂ

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In this paperwork, we study the comparison between the Romanian and European legislation, with examples taken from France, regarding agricultural exploitations. We present in details the legislative elements that rule the situations of incompatibility between the Romanian and the European agricultural exploitations, making concrete proposals for a legislative compatibilization in this field.

Key words: agricultural exploitation, legislative compatibilization, community aquis, minimal surface of installation

Agricultural exploitations (farms, households) represent the basic structural elements of the agricultural economy from each country. Along time, especially in the contemporary times (after the Second World War), many types of agricultural exploitations were constituted in different countries, systems or economic regions. The option for a certain type of exploitation (or for certain types) was influenced by economic reasons, evolutional along time, but also by politic, ideological or doctrinaire motives.

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In the second part of the 20th century, two types of exploitations, depending on the property nature, came off: **private**, in countries with a market economy, and **etatist-collectivist**, in countries with a centralized economy.

The **private exploitations** from countries with a market economy were divided into many variants:

1°. Private-familial agricultural exploitations of small and mid dimensions, specific to E.U. countries, notable from the technical, commercial and financial points of view.

2°. Private-familial agricultural exploitations of big dimensions, from U.S.A., well technically endowed, very notable in terms of technology, with high productivity and rated capacities specific to economy of scale.

3°. Great landowner private agricultural exploitations, from the South of America and the South West of Asia, extensive, dumbfounded in quasi-medieval relationships, with modest technical and economic results.

4. Private agricultural exploitations like commercial societies, characterized by big dimensions (surfaces), based on waged labor, with a high extension in the Eastern German lands, but also in C.E.E. countries (appeared after the privatization of the ex state agricultural enterprises).

Cooperatives downstream and upstream from the agriculture, namely material purchasing and marketing, the processing, storing and distribution of agri-food products, expanded themselves. In France, after 1955-1960, some cooperate-type agricultural exploitations appeared in the agricultural production, known as “groupement agricole d’exploitation en commun” (GAEC). They use 3,5 million hectares (10% of the country agricultural land) and have about 110-120.000 members, grouped in 48-50.000 GAEC (the maximal number of cooperative farmers in a group, permitted by law, is 10, and the average surface is about 75 ha).

In Italy, especially in the South of Italy (mezzogiorno), some associations of farmers (gestioni associated to GEA) were founded having very small surfaces of agricultural land.

The **etatist-collectivist agricultural exploitations** extended, up to the generalization, in the Soviet Union after the installation of communism in 1917, and in the East European and Asian countries and Cuba after the war, especially under two forms: the state agricultural exploitations
(“sovhoz” or “gostat” by type), ex-“IAS” of gigantic dimensions, and the agricultural collectivist exploitations (or “colhoznica”), ex-“CAP” in Romania and “colhoz” in U.S.S.R., of great and gigantic dimensions, completely controlled by the state.

We can find agricultural cooperate exploitations in Israel, too, called “chibutz”, where the state have made big investments in technology, especially in the modern irrigation systems, mechanics, fertilization, and in the process of the agricultural products.

What has happened in our country and in the other East European countries after 1989? Each ex-communist country, after 1989, found new preoccupations, as politic as well as judicial, to restructure the agriculture organized in a communist-centralist system, in terms of eliminating the old system through a complex reform of the property, of the exploitation management and of the financial and credit systems to support the exploitations. In many countries, the reform of property got to know a lot of solutions concerning the reconstitution of the property, and also of the restructuring of the agricultural exploitation. The concept of restructuring agriculture in each country was strongly related to the economic conceptions of the major politic forces that legalized the agrar reform. In most of the East and Central European countries, the post-communist agrar reform was focused on the fundamental principle of restituting the right of land property in the limits available before the communist period and the restructuring of the agricultural exploitations, according to the owners options and possibilities, based, in most of the cases, on the principles of land market. In most of Central and East European countries, the political interventions through restrictions (or conditions) or the favors or advantages for another ways of evolution regarding exploitations were, excepting Romania, very limited.

In Romania, Land Law no. 18/1991, and also the laws connected to it, especially Emergency Ordinance 108/2002 regarding agricultural exploitations had as fundamental characteristic the attempt of the social-democratic Parliament and Government to remake some socialist structures.

In order not to enunciate a simple political thesis, we will try, from now on, to give concrete examples related to the effects of these laws upon the process of forming the agricultural exploitations of European type.

The Law no. 18/1991 reestablishes the rights of land owner for the countrymen which entered the CAP with their land between 1945-1962 and
establishes the property right for the heirs of the owners registered in CAP. For the owners (or heirs) which had less than 10 hectares, the property right is totally reestablished, and the surface offered to those that owned between 10-50 ha is 10 hectares, too. The Land Law reconstitutes in this way the land property with the maximal limit of 10 hectares of arable land per family, as well as the constitution of the property right for the families which had not have any land before. The land difference up to the surface owned is indirectly expropriated, even if this fact is not stipulated in the law. This surface remains available so the commissions that apply the Land Law may offer it to those who had not had any land.

In all ex-socialist countries, the legalization of the property right was made taking into consideration the future compatibilization with the agricultural structures from the E.U. In Poland, East Germany, Estonia and Lithuania, the reconstitution of the property right was made at the level of properties owned by land owners before the installation of communism. In Bulgaria, the right of property is limited to 30 hectares per family, in Latvia to 50 hectares, in Czech Republic and Slovakia to 150 ha per family and in Romania to only 10 ha per family. All countries, beside the apparition of the laws of property restitution, had legalized land survey and also immovable publicity, permitting the free sale of agricultural surfaces, excepting Romania (up to 1998) and Albania.

The limitation of the maximal surface, through the constitution or reconstitution of the property right, to 10 ha shows the neo-communist political conception to block the formation of the efficient private-family farms, of occidental type, attempting in this way the remake of the socialist agriculture. All ex-communist countries, excepting Romania, had legalized, beside the reconstitution of the land law, the transition of all production assets (equipment, tractors, buildings, systems for land improvement) into the farmers property. Each country permits the sale and the purchasing of land maintaining the right of pre-emption at purchasing, for farmers, excepting Romania, until 1998. The lease is legalized in all countries after 1990, but in Romania this law is voted in 1995 with many judicial and technical imperfections (favoring the associative forms). The founding of agricultural associations and societies is not legalized in any country, excepting Romania, under emergency conditions, in only four months after the apparition of Land Law.
The unilateral privatization of agriculture through Land Law no. 18/1991, without the production active transition into the property, has generated negative implications upon the agricultural exploitation constituted according to the Law no. 36/1991. This law stimulates, in this way, the re-socialization of the agricultural exploitation and the exploitation on lease (where the one who leases is represented by a commercial society of IAS or SMA type). Article 36 from the Land Law no. 18/1991 reestablishes the right for land property in a discriminating way, maintains and protects a powerful monopolistic state sector, legalizes the illegal land transfer from owners and CAP in favor of IAS. Ex-owners whose land is in the property of agricultural commercial societies are transformed into shareholders at these societies.

Article 48 from this law, concerning the right of pre-emption in the case of alienating the land through sale, confers to the state the right of purchasing lands for sale before the other purchasers, through the governmental agency ADAR. The blockage of the process of liberalization concerning land circulation for more than 7 years impeded the formation of the agricultural exploitations, maintaining the governmental control upon the process of development and rural arrangement through ADAR.

The application of the Land Law, without connecting it to the other laws, generated the apparition of a great number of owners (5,2 millions), and the properties are formed of an average of 4-5 parcels, with negative implications upon the technologies of cultivation and the economy of exploitations. Such a land property structure is defective from the point of view of performances. Private-family agricultural households cover about 1,1 million families with exclusively agricultural preoccupations, which work the land owned, to which they add land surfaces leased from another owners.

Land Law was amended by Law 169/1997, Law 1/2000 (which extends the reconstitution up to 50 ha agricultural land and 10 ha forest, where are available surfaces in the state private property or which gives damages for the land not retroceded because of its absence – with favorable effects upon the formation of private-family agricultural exploitations) and by Emergency Ordinance 102/2001 (which brings restrictions for the application of Law 1/2000).
The promulgation of Lease Law in 1994 (in almost 3 years after the apparition of Land Law) implied in some regions the formation of some private farms of bigger dimensions (between 50-100 ha), taking in leasing some land surfaces from other owners. Lease Law no. 16/1994, amended by Law no. 65/1998, aims at the improvement of leasing conditions: the tenant needs a professional degree in agriculture, and the contract period is not specified.

Foreigners are excluded from land leasing, under the conditions in which Law 35/1991 concerning foreign investments (amended in 1993) guarantees only the property of fix assets, and not the lands on which the assets are placed. Because the foreigner property is still unclearly formulated, this main field remains unfavorable for foreign investments.

**Law no. 54/1998 concerning free circulation of private lands** allows land sale and purchase, even if the maximal limits are established at 200 ha arable land per family. The law also regulates the right of pre-emption at purchasing for co-owners, neighbouring owners and tenants. The land owner has the right to sell at the best price, regardless of the pre-emption rights that had been established, the pre-emption being applied only in the case of an offer for an equal price. The application of this law represents the base for the development of some private properties of viable economic dimensions, for technical progress and the support for enterprises.

Under such legal circumstances, the situation of the Romanian agricultural exploitations is accountable, because all important laws (Land Law, Lease Law, Land Free Circulation Law, Law concerning the agricultural associations and societies with judicial personality no. 36/1991, Law concerning the acceleration of privatization no. 55/1995, etc.) rather blocked the process of forming and consolidating the exploitations.

Besides all these aspects, Emergency Ordinance of the Romanian Government no. 108/2001 concerning agricultural exploitations appears in 2001, in total contradiction with the European legislation and practice, especially with that from the European Union countries.

Starting with the first article, which states that “exploitations are complex forms of property organization, which put forwards land, animals and the other means of production, interconnected in a unitary system (?!) in order to carry out works, services and efficient acquirements of agricultural products”, three thesis totally mistook or incorrectly formulated appear.
The first judicial error is related to the thesis concerning the “complex form of property organization”. What complex form of organizing property? - when, worldwide, the private-family agricultural exploitation with own management is based on the land property (or, as a rule, immovable). According to this statement, the simple forms of organization in the case of agricultural exploitations, namely those that coincide with land property), cannot be assimilated to the legal exploitations, organized according to law.

The second law error within the first article concerns the formula promoted and supported by the communist legislation, namely the phrase “unitary system”. The unitary system does not allow the pluralism of the organization and property forms and neither multiple solutions, depending on the concrete situations from each country, region, system, etc. It is clear that the legislator, strongly connected to the communist ideology, wanted to promote through this law unitary systems of agricultural exploitations, close from a structural and organizational point of view to those before 1989 in the Romanian agriculture.

The third error, included in the first article, too, concerns the inversion of the objective priority order (goals, targets) for which the agricultural exploitations function, so: a) in order to carry out works, b) services, c) to obtain in an efficient way agricultural products.

It is clear for anybody who reads this text that this enumeration is not accidental. The major goal of all agricultural exploitations is to obtain agricultural products and only in subsidiary they have as commercial targets works and services. The main object, of carrying out works and services, belongs to another agricultural structures from the rural area, namely societies for mechanization (Agromec), irrigation, etc. We may conclude here that the text author did not know the priority order of the agricultural exploitation objectives, or the author was a specialist in agriculture attendance and not in agricultural technologies.

In French rural legislation (Rural Code), agricultural exploitations are defined in a way much broader: “Any physical or judicial person which exerts activities considered agricultural in terms of law, may be registered, under their declaration, in an agricultural register.”
Law defines “agricultural activities” in this way (Art. 311-1): “are considered agricultural all activities that correspond to the mastery or exploitation of a biological cycle of vegetal or animal origin and constitute one or more steps necessary to carry out these cycles as activities exerted by a farmer, and that are not in the prolongation of the production document or that has the exploitation for support. The agricultural activities defined in this way have a civil character”.

In order to compatibilize the Romanian legislation with the West European one, it is important to remind what the Rural French Code states concerning the dimensions of the French agricultural exploitations, at the minimal installation surface (for young farmers), at the average surface of the exploitations with two of work force units (for a family formed of husband – wife) and at the surface of family exploitations with personal responsibility.

According to the Agricultural Exploitation Law from 1985, the national minimal surface of the agricultural exploitations is established at 25 ha. In the case of installing young farmers, according to Article 212-5 from Law 93-934/1993, the minimal installation surface is established within the department direction scheme, for the agricultural structures of each natural region (area) and each culture nature.

The minimal installation surface cannot be smaller than 50% of the minimal surface of the agricultural exploitations, namely 50% from 25 ha, respectively 12,5 ha in the agricultural areas, or 30%, namely 6,25 ha in mountain regions or disadvantaged areas, if these exploitations are destined for policulture and animal breeding.

In another words, in France, the country with the biggest agricultural exploitations in E.U. after Great Britain, the minimal installation surface for a young family farm may be 8,34 ha in mountain area and 12,5 ha in the other agricultural areas.

In a synthesis, we consider that the whole Romanian legislation is restrictive concerning the formation of the private-family agricultural exploitations:

1°. Law 18/1991 limits the reconstitution of the land property at maximum 10 ha, and through the judicial land circulation (sale-purchase, inheritance, acquirement, etc.) the private exploitations are limited to maximum 100 ha.
2°. Law 18/1991 is amended in 1997, with the specification that the maximal surface of the private agricultural exploitation is 200 ha.

3°. Law 1/2000 extends the right of property at the level established by Law of agrar reform 187/1945 (Law Petru Groza), that is 50 ha.


Applying the criteria of defining agricultural exploitations promoted by the Emergency Ordinance no. 108/2001 in the situation from the European Union countries, it could accept as commercial exploitations only 1,3% from all exploitations from Belgium, 7,3% in Denmark, 0,1% in Greece, 3,5% in Germany, 2,4% in Spain, 9,6% in France, 0,5% in Italy, 0,8% in Holland, 1,3% in Austria, 1,2% in Portugal, 15,8% in Great Britain, 2% from the total of agricultural exploitations in European Union (data quoted from YEARBOOK’97, p.320, 372).

Maybe these dimensions would not have any significance, excepting the social-democrat government intention to remake under a masked form ex-CAPs, now called agricultural exploitations, if in Article 7 would not appear the special statement that the only exploitations supported from the financial point of view by the state will be those with the dimensions specified in Article 5.

OUG no. 108/2001 is an out-dated, unreal, incompatible and with negative consequences upon the Romanian rural life normative document.

It is out-dated because E.U. countries, to which we are going, do not apply anymore maintenance systems (support or subsidize) for farmers depending on the exploitation surfaces, excepting the situation when farmers give up the annual or multi-annual cultivation of some agricultural surfaces (fallow grounds), for which they receive indemnities for temporary elimination from culture.
OUG 108/2001 is **unreal**, because the surfaces specified cannot be touched through market mechanisms, only by forcing land owners to get associated.

OUG 108/2001 is **incompatible** with the European rural reality. If this ordinance would be applied in the E.U. countries, only 1,3% from all exploitations from Belgium, 7,3% in Denmark, 0,1% in Greece, 3,5% in Germany, 2,4% in Spain, 9,6% in France, 0,5% in Italy, 0,8% in Holland, 1,3% in Austria, 1,2% in Portugal, 15,8% in Great Britain and only 2% from the average of the European Union could be qualified commercial farms.

OUG 108/2001, in the case in which its application will be forced, will have serious consequences upon rural area and farmers.

At one hand, farmers who get associated under such conditions will become a mass of renters, controlled by the association managers. They will spoil, as already happened, the associations and societies, and the major part of the associates will remain poor with incomes under the subsistence level.

At the other hand, **the phenomena of forming the private-family farms (exploitations) according to the European model is stopped**, the exploitation surfaces – in concordance with OUG 108/2001 - being in contradiction with the Plan for Agriculture and Rural Development signed by Romania with E.U. (within the Program SAPARD, the exploitation surface is 25 ha at hills and 50 ha at field).

Then, if we take into consideration the provisions of Law concerning the privatization of ex-IASs, in **Romania will appear great landowners again**. Great landowners have appeared and they are still appearing, with up to 55,000-65,000 ha, in the case of The Great Braila’s Island. With another words, Romania has abolished the great landowners with the Law of agrar reforms in 1918, and now at the beginning of the 20th century aligns, through the actual agricultural politics, to some Latino-American or Asian countries.

We must find realistic dimensions for the Romanian agricultural exploitations, possible to be accomplished in an acceptable period of time, and we propose the following dimensions for the private-family farms:
The dimensions of the private-family farms

<table>
<thead>
<tr>
<th>Category</th>
<th>Dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cereal and technical culture farms</td>
<td>30-50 ha;</td>
</tr>
<tr>
<td>Vegetable farms</td>
<td>3-5 ha;</td>
</tr>
<tr>
<td>Orchards and vineyards</td>
<td>5-10 ha;</td>
</tr>
<tr>
<td>Farms with milk cattle (field)</td>
<td>20-30 ha; 15-20 individuals;</td>
</tr>
<tr>
<td>Farms with milk cattle (hill)</td>
<td>10-20 ha; 7-15 individuals;</td>
</tr>
<tr>
<td>Cattle farms (mountain)</td>
<td>3-5 ha; 2-5 individuals;</td>
</tr>
<tr>
<td>Pig farms</td>
<td>100-500 individuals;</td>
</tr>
<tr>
<td>Poultry farms</td>
<td>5000-10000 individuals;</td>
</tr>
<tr>
<td>Sheep farms</td>
<td>500-2000 individuals;</td>
</tr>
<tr>
<td>Mix farms (field)</td>
<td>20-30 ha;</td>
</tr>
<tr>
<td>Mix farms (hill)</td>
<td>10-15 ha;</td>
</tr>
<tr>
<td>Mix farms (mountain)</td>
<td>3-5 ha.</td>
</tr>
</tbody>
</table>

In order to reach these reasonable dimensions of the agricultural exploitations, some coherent rural policies are necessary to support their formation and consolidation.

In the case of the privatization of the ex-IASs, it would have been necessary to begin with the restructuring of these IASs in farms with dimensions which could be privatized, with access and facilities for the specialists in agriculture, for which we stipulate the following surfaces or livestock:

The dimensions of the assets commercial agricultural societies (ex-IASs)

<table>
<thead>
<tr>
<th>Category</th>
<th>Dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cereals (field)</td>
<td>500-1000 ha;</td>
</tr>
<tr>
<td>Orchards, vineyards</td>
<td>20-40 ha;</td>
</tr>
<tr>
<td>Milk cattle</td>
<td>100-200 individuals;</td>
</tr>
<tr>
<td></td>
<td>80-150 ha land;</td>
</tr>
<tr>
<td>Meat cattle</td>
<td>800-1000 individuals/series;</td>
</tr>
<tr>
<td>Poultry</td>
<td>50-100 thousand individuals/series;</td>
</tr>
</tbody>
</table>
BIBLIOGRAPHY

THE DURABLE RURAL DEVELOPMENT IN ROMANIA: CONCEPT, POLICIES, FINANCING

DEZVOLTAREA RURALĂ DURABILĂ A ROMÂNIEI: CONCEPT, POLITICI, FINANŢARE


This paperwork consists of the major concepts of the durable development accepted and promoted in E.U., through the European Charter of the rural area and also through the package of the agricultural policies included in Agenda 2000 and in The Agreement from Luxembourg (2003).

Here are presented, in their evolution, the European common policies concerned with the rural area, and also the dynamics of the European systems of agricultural financing.

Key words: durable rural development, multifunctional agriculture, common agricultural market, Agenda 2000

The rural development in Romania represents a cardinal component of the general evolution of the Romanian economy. There are three rural resources that offer a real dimension to the necessity of rural development in our country: 14.8 million ha of useful agricultural surface, 10.2 million inhabitants in the rural area, from which 3.5 millions represent agricultural workers, and 90% from the total surface of the country represents rural area. If we add the fact that our country is to adhere to the European Union to these Romanian rural features, we may obtain the exact
dimension of the big dilemma: is it possible to integrate some structures still anachronistic into a modern economic, social and politic, notable and dynamic system?

We need science and wisdom to choose the European way for the Romanian rural development, taking not into account outdated and antiquated ideologies or the disastrous experiences of the 20th century. Within the adoption of the agricultural and rural development programs, it is necessary to start from the idea that the Romania’s agriculture and the Romanian rural area, now at the beginning of a new century and millenium, are not comparable to E.U. countries in terms of structures, outputs and level of development. Romanian agriculture and the Romanian rural area, compared along time to the Western European countries, are now in the same stage in which the Western European ones were in 1945-1950, and consequently the solutions to maintain agriculture must be adapted to this stage.

THE CONCEPT OF DURABLE RURAL DEVELOPMENT

In order to integrate Romania into the E.U. economical structures, the rural development must have an absolute priority. This statement relies on the necessity to compatibilize the Romanian structures and agricultural performances with the Western European ones, and also, as we have already mentioned above, on the natural and human resources from our agriculture. The priority of modernizing agriculture, in our opinion, is also based on the economical and social vital functions of the agrifood system: the assurance of an equilibrate nourishment for people (including food health and security in Romania), of the raw materials necessary for industry and of an active and profitable export of food products. In the same time, agriculture is an immense market for branches upstream and downstream from it, contributing directly to the development of these industrial branches and also to the sectors connected to the agrifood system.

We also consider that the rural development and arrangement, with the percentage occupied by rural population and the surface of rural area, gets a national importance. Taking into account this dimension, we consider that the rural area represents the Romania’s visit card.
The problem of rural development and arrangement is one of the most complex problems of the contemporary times, due to the fact that, in its essence, it supposes the achievement of an equilibrium between the requirement to preserve the economical, ecological and social-cultural rural area, on one hand, and the tendency to “modernize” the rural life, on the other hand. In the same time, the rural development and arrangement is placed at the confluence between the tendency to expand the urban, to develop (sometimes aggressively) industry in the name of rural area and the requirement to maintain, as much as possible, rural area at its actual value and dimensions.

Rural development and arrangement, with tendencies of modernization within the European frame, as coverage area, has as major objective the maintenance and preservation of the national character of the rural area and culture. In the locations where some serious damages (ecological, economical, social-cultural) were carried out (at local, regional or national level, the case of the former communist countries, including Romania), the solution of “reconstruction” was proposed, or, eventually, the “restoration” of these areas, in terms of reducing them to rurality “standards”.

The new philosophy of the rural area must be based on the concept of durable rural development, which supposes an important agricultural component (or forest, depending on the situation), and also a solid rural component, both based on:

- the harmony between the rural economy and the environment (the equilibrium economy – ecology);
- the inclusion into a system of durable, sustainable development, in a period of time as long as possible;
- the humanization of the rural area maintaining the natural environment untouched, and the environment created by men should be as close as possible to the natural one;
- the use of the local natural resources in the economic activity, with a priority for the regenerative ones.

From the presentation of the actual agricultural structures and of their sub-performances, of the rural economy with a primary prevalent feature and of the rural population consumption of resources, we may
conclude that the Romanian village is characterized by a high degree of bareness (over 50%, compared to 13-15% in urban area). The emphasized bareness, with a tendency to become chronic, makes the rural economy to slide towards the natural subsistence economy and to isolate itself from the market economy.

We consider, taking into account the studies carried out so far, that the solutions of rural development must contain concrete legislative and financing elements in order to stimulate the complex and durable development. The village, through its economy, must be extracted from the closed natural economy and included into a business environment. The rural economy must be transformed, step by step, from a subsistence economy into a commercial rural economy.

The quality of the Romanian rural area (agricultural ecosystem) represents the natural premise for our product competitiveness. Basic agricultural products (wheat, corn, sunflower, soy, vegetables, fruit, grapes, meat, milk, etc.), obtained under medium technical conditions, are perfectly competitive with similar products from other countries, and in most of cases their natural quality is even superior.

A great part of the Romanian rural area has the natural and cultural vocation to practice the ecological and cultural agricultural tourism (in the mountain areas).

POLICIES OF RURAL DEVELOPMENT

Taking into account the special natural qualities of the rural area, the scientific research must support the durable rural development, as factor of economic growth, of diminishing causes for bareness and of a gradual transition to an economic, ecological and social life standard of an acceptable life environment, comparable, in its first stage, to that from the developed U.E. countries.

We appreciate that the works from the Cork conference put into theory and, in the same time, expand the problems of the application in practice of the rural development in U.E. countries and in the other participant countries. The final declaration of this conference contains 10 points, in whose center is placed the rural preference based on durable development as fundamental principle of the European rural policy.
Durable rural development is defined in precise co-ordinates, as follows:
- the stabilization of the population in rural area through a significant elimination or reduction of the rural migration;
- the eradication (fighting against) of the bareness by the stimulation and growth of the labor force;
- the promotion of the equality of chances for each rural inhabitants;
- the growth of life quality and general wellness;
- the preservation, protection and amelioration of the environment quality and rural landscape;
- the optimal use of the regenerative local natural resources.

THE FINANCING OF THE RURAL DEVELOPMENT IN EUROPEAN UNION AND ROMANIA

1°. Rural development is a concept and, in the same time, an integrated action which implies a multi-disciplinary, inter-sectoral and regional methodological approach. Each orientation present in the new PAC reform has its correspondents in the mechanism of financing agriculture and rural development contended in the new European agricultural model within the Agenda 2000, according to the Agreement from Berlin, March 1999. With this document, the new common agricultural policy puts into equilibrium the allocation system for the European structural funds, on two basements that support the (1) agricultural market and the (2) rural development.

The main objectives financed by E.U., concordant with the agricultural and rural development policy, proposed by Agenda 2000, are:

1. investments in agricultural farms. Measures of restructuring the agricultural farms aim especially at the quantitative amelioration of the production, the reduction of prices (taking into account the reduction of the material consumption, especially of chemical fertilizers, pesticides, etc.), the environmental protection and the amelioration of the agro-forest landscape, the assurance of the animal good treatment and wellness, the encouragement for multi-activity. It is notable the fact that through Agenda 2000, the
investments in agricultural farms aim at the discouragement of the production intensification and the maintenance of the technologies that are friendly for environment, landscape and productive animals;

2. expenses for human resources with three components: support for young farmers, encouragement for anticipated retirement and stimulation for professional formation. Taking into account the phenomena of farmer aging (exploitation managers), E.U. has stimulated, through concrete financing measures, the rejuvenation of the farmers by generation exchanges. Farmers older than 55 years old are stimulated with life annuities in order to retire in advance and to transfer the agricultural exploitations to the young farmers. Young farmers, on the other hand, are supported with installation bonuses, advantageous credits for investments in farms. Also, with such a financial package, farmer formation and training are financed.

3. financing of the farmers located in disadvantaged areas and with environmental restrictions consists of compensatory payments for a management adequate to the environment protection programs. Within this measure is included the compensation for crop losses or for supplementary expenses generated by the program Nature 2000;

4. financing measures for agro-environment consists of payments to those farmers who engage in environmental agreements in order to protect the agricultural environment, to respect the technologies that are friendly for the environment, according to the standards included in the common aquis;

5. financing the investments in processing and marketing agricultural products. Eligible for this action are those economic agents from rural area, considered farmers or agrifood processors, which grow product quality, pay attention to environment protection and find new markets for their products;

6. financing the forest measures materialized in the founding of new wooded surfaces, investments to process the raw materials from forest and wood, growth of the wood raw material, etc.;

7. financing the measures of development of some rural areas, like: fusion, re-division into lots, and the re-organization of the farm agricultural fields; the stimulation of the farms which practice multi-activity and the diversification of the agricultural production from which are obtained products with an assured marketing, measures to protect the
environment and to assure animal wellness, the development and improvement of the technical equipment from rural areas, the preservation, repair and modernization of the rural areas, in respect to the specific traditions and architecture, using local materials, extending all types of services for each group of agricultural producers.

Table 1


<table>
<thead>
<tr>
<th>No.</th>
<th>The measure of rural development</th>
<th>Mil. Euro</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Investments in farms</td>
<td>4682</td>
<td>9,5</td>
</tr>
<tr>
<td>2.</td>
<td>Human resources</td>
<td>(3591)</td>
<td>(7,3)</td>
</tr>
<tr>
<td></td>
<td>From which: - the installation of young farmers</td>
<td>1824</td>
<td>3,7</td>
</tr>
<tr>
<td></td>
<td>- professional formation</td>
<td>344</td>
<td>0,7</td>
</tr>
<tr>
<td></td>
<td>- anticipated retirement</td>
<td>1423</td>
<td>2,9</td>
</tr>
<tr>
<td>3.</td>
<td>Financing in discouraged areas</td>
<td>6128</td>
<td>12,5</td>
</tr>
<tr>
<td>4.</td>
<td>Financing the measures for agro-environment</td>
<td>13480</td>
<td>27,5</td>
</tr>
<tr>
<td>5.</td>
<td>Investments in processing and marketing</td>
<td>3760</td>
<td>7,7</td>
</tr>
<tr>
<td>6.</td>
<td>Investments in forests</td>
<td>4807</td>
<td>9,8</td>
</tr>
<tr>
<td>7.</td>
<td>Financing of the rural restructure</td>
<td>12649</td>
<td>25,8</td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL</strong></td>
<td><strong>49097</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

2°. In January 2003, The European Commission has proposed a new package of measures for the PAC reappraisal for a medium term, which is going to be applied starting with 2007, after the adoption of the budgetary frame for 2007-2013, reckoning with:

- the decompression of the production financial support, through the introduction of a single help per farm (per ha), independent on the production;
- the conditioning of help tuning with the observance and protection of environment, of the conditions for food and health security, and farm maintenance in good conditions;
- a stronger policy of rural development with an improved financial support, new measures to improve the quality of animal products and
THE NEW PHILOSOPHY OF THE RURAL AREA DURABLE DEVELOPMENT

Starting from the agricultural structures of the European countries, the rural problems are not the same all over the continent. The specificity of the problems of the Romanian rural area is determined, in the first place, by the village status after half of century of communism, and, in the second place, by the transition to the market economy, by agriculture restructuring, by its transition from the etatist-collectivist form to private-familial structures, by the reconstruction of the institutions and organisms specific to the rural area. According to the 15th orientation of the rural area European Charta and to the regulations of the SAPARD program, the initiatives and the projects for assistance, development or construction of the rural infrastructures must be multiplied. In order to solve the agricultural particular problems, Romania needs some specific strategies and measures in terms of agricultural policy and especially a sure access to the agricultural pan-European market.

The problems of the rural development at this beginning of the 3rd millennium remain a fundamental aspect of a rational administration of the rural area, which affect this area in terms of economic, social, habitat and pleasure uses.

According to most of the studies carried out, a change of concept, of mentality, a new philosophy of rural durable development is needed, in correlation with local and regional autonomy and with the principle of subsidiarity.

Following the evolution of the Romanian village along time, we may appreciate that, in general, it has based upon natural phenomena of development and upon empiric concepts, also upon the sporadic initiatives of the rural communities. Human habitats, including their communities and activities, were formed and evolved depending on a series of ecological, geographical, social and historical local conditions.
Human habitats in the Romanian area were constituted as embryonic forms in certain points on Romanian territory, starting from two basic elements:

a) the existence of a natural area providing economic activities specific or adjacent to agriculture (agriculture, hunt, fishing, agricultural product processing, then the exploitation and processing of the natural resources, extraction of the materials for constructions, mining, commerce, navigation);

b) the use of the rural area as a protection place for the community against natural disasters and different inter-community and international conflicts. From the beginning of these rural embryonic communities and up to now, along time, a series of structural changes has interfered. The complex phenomena of evolution of the rural locations and of rural area, in its integrality, can be assimilated to a process of rural development and arrangement. The way in which these rural development, arrangement and territorial equipment took place differs dramatically from an area to another, depending on the economic potential of each area used for the benefit of the habitat, the cultural environment, the protection of the habitats and the stimulation of the local economy. Romania must adopt and promote policies of rural development according to the new European rural policies, comprised in the European Charta of the rural area and in the Regulation No. 1268 from 1999 (concerning SAPARD program), which establishes the conditions for the agricultural and durable rural development support, for the pre-adhesion period.

Programs of rural development affect the rural area point-likely (in the location of implementation) and also territorial (location, area, region). Due to this important aspect, rural development programs impose a multiple approach, following the direct, secondary, tertiary, etc. influences upon the economic area, agro-ecosystems and habitat.

At the same time, the programs of rural development must take into consideration the multiple functions of the rural area (economic, ecological, social and cultural), starting from the following requirements:

- to localize people needs in the center of the objectives and decisions regarding programs;
- to protect the values of the rural society, especially family life and its traditions, in order to grow children and integrate them within the community;
- to develop the community identity and to grow the sense of implication and responsibility concerning local administration;
- to preserve the particularities, cultural and historic traditions and to contribute to their promotion at local, regional and national level;
- to create facilities of diversification for the rural-urban relationships, of penetration for some new infrastructure and logistic systems in local culture centers, without polluting or deteriorating their authenticity.

Rural development programs should also contain different multiple components, whose extension depends on the requirements of the local and/or regional communities and on the economic, ecological and social-cultural specificity of that area or location for which the development program is carried out.

The projects of arranging the rural territory, as components of the rural development program, must take into consideration some principles, namely:

- **men’s requirements and needs are in the center of project planning;**
- **community interests have priority in the selection of projection variants;**
- **policies of arranging territory must facilitate the durable exploitation of agriculture and forestry and of another economic activities;**
- **project of arrangement should be made in such way to be integrated, when necessary, into development and inter-community, regional, and international cooperation programs.**

**Land credit** must represent a long-term strategy to support farmers, to form viable, sustainable agricultural exploitations and some productive investments with credits offered under advantageous conditions.
Credits for farmers, under the conditions of the Land credit law, are offered by banks, with an interest subsidized from the financial means earmarked in the state budget each year. The level of the subsidized interest may differ from one year to another, and also depending on the categories of borrowings and credit objects, in terms of budget resources and an emphasized maintenance strategy of farm producers and of some agricultural sectors, cultures, species and categories of animals and poultry.

The land credit is offered in order to finance the investments with a special importance in the development of the agricultural production, respectively, the producer installation and stabilization in agriculture, the mending of irrigation systems, the achievements of new arrangements in local systems, purchasing of tractors, agricultural outfits and equipment, the projection, founding and modernization of the vineyards and orchards, the construction of hothouses, the founding and modernization of animal farms, purchasing of production and reproduction animals, construction and modernization of animal shelters, the amelioration of pastures, purchasing of agricultural (and forestry) lands for agricultural production, facilitating in this way the organization of some agricultural exploitations of optimal size and with a high degree of efficiency. Becoming objects submitted to credit, agricultural lands will also become objects submitted to hypothecation in favor of the creditor bank.

In the case in which the guarantees offered by the credit beneficiary are not enough compared to the credit value, for the credits approved for farmer installation and agricultural and forestry lands purchase, we can also foresee the possibility to guarantee credits in a proportion of up to 80% by the state.

The Law of land credit must stipulate installation bonuses for young farmers, some interest reductions for the farmers located in mountain areas, and also for the investment credits taken by young farmers.

Funds created through the annual state budget under law conditions must be submitted to auctions. The winning of the public auction will be accomplished by the bank that offers the biggest reduction of the minimal interest earmarked for the respective year.
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Closing the activity of an enterprise was perceived differently, both by decisional board and its wage earners. The bankruptcy procedure was perceived as a compelled liquidation of an enterprise. This paper presents the legal and economic arguments of the bankruptcy procedure, the stages in which it is implemented and bankruptcy procedure characteristics stipulated in Romania by Law 64/1995, Law 99/1999, Law 82/2003, and Law 199/2004.

Key words: bankruptcy, liquidation, debt, creditors, insolvency.

The last decade of the past century faced the Romanian economy with the performance criteria inherent to concurrent markets within the market economy. If in the prior period, the communist one, providing raw materials to enterprises was made through a distribution system, and the capitalization of products was the state’s monopoly, then in the after-December period, the Romanian economy, on the whole, and each economic organization, in part, had to face the market economy strictness, consumers’ strictness, the bitter competition of European and international markets of agro-alimentary produce. The fight was and still is bitter, as it can be seen when speaking about agricultural enterprises, not few ones, that, based on inefficiency had to close their activity. We all know what happened with the enterprises producing pork and poultry meat, and more.

Closing the activity of those enterprises was perceived differently by its wage-earners, and even by economic specialists. This perception was due to an incorrect understanding of the bankruptcy conception. Not few times they promoted the idea of a foreign intervention in that enterprise, either from the same country, or from another one, as a result of some hidden interests that some economic agents promoted in order to eliminate from the market the produce of that enterprise.

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In the market economy conditions, the only key factors that an enterprise, regardless of its structure, can set its economic objectives are the price and the quality of produce. If we consider the fact that in general consumers have a natural behavior, then for high-quality produce at a good price it would be a greater demand. Thus, the enterprise recovers its financial values, and it has the possibility to take back a new production cycle, all with great economic and social advantages.

If not, the produce are stopped within capitalization for a long period of time, they depreciate, they morally use, principally because of the lack of competition capacity which generates a less demand or even a non-existing one.

Financial values can not be recovered, so the respective enterprise will have 2 variants:

a) either reduces progressively its production volume, followed by the entire set of negative economical and social consequences, from which are especially remarked the temporary or permanent dismissal of a part of the personnel;

b) or asks for financial loans, variant which eliminates the negative consequences of reducing the production activity;

This second variant generates what in the economical policy is called temporary work disability. If the difficulties of selling the products or the other motives that generated the temporary payment disability continue, then the economical situation of the enterprise becomes aggravate and the enterprise gets in the situation of permanent incapacity or insolvency.

In this phase, the bankruptcy procedure must be activated. We have to mention the fact that there is no universal bankruptcy code, a unique law applicable all over the world. In this situation, the World Bank, in the context of promoting the international cooperation in the insolvency field, proposes 3 main objectives to be followed by the bankruptcy:

1. Maximization of the total value, distributed to the creditors, employers, shareholders or any other interested parts. For this purpose, there are 3 possibilities: reorganization, selling or liquidation of the company. The variant, which brings maximum value, should be chosen, the variant that allows paying the debts to all the creditors. In this case we have to make the following specification: the enterprises economical situation has to be carefully followed by the enterprise itself, so that the bankruptcy procedure
can be started at opportune time, at a moment when by reorganization, selling or liquidation the entire necessary sum for creditors payment will still be obtained.

2. Rehabilitation of the viable businesses and the liquidation of the non-viable ones. If in the enterprise’s structure there are production departments, which, by adequate studies, are proven to be viable, then the legislation afferent to the bankruptcy has to be sufficiently elastic to dissociate the businesses that could have a future from the ones that only have a past.

3. Establishing a list of ration priorities of the debts. The creditors with guaranteed credits have priority for being paid. This method contributes to the credit institution consolidation and to the costs reduction.

Of the 3 maximization variants for the values distributed to creditors, the company’s reorganization is essential, method that should represent the role or the main objective of the bankruptcy procedure. Only that this variant is possible only if the opportunity of the bankruptcy procedure is respected.

The company’s reorganization has the advantage that the enterprise, by adapting its profile to the market’s requirements, will continue to produce, will pay the creditors and, a very important aspect, will avoid or fade the negative social consequences, especially the personnel’s dismissal, respective the unemployment.

In this case we could make an analogy with the medical environment. If the disease is identified on time, then the curative measures have great chances of success and opposite.

Promoting a rational bankruptcy is necessary from the debtors’ and creditors’ interests point of view and also of the other interested parts, especially the employees of the debtor company and even of the consumers, especially in cases of monopolies and public utilities.

A slow or late promoted bankruptcy procedure immobilize the company’s assets, generating reduced recovering possibilities.

In the former communist, East-European countries, the initiation of the insolvency procedure is differentiated in the State Report and can be required by the debtor, by the creditor, by the liquidator and by the Register of Commerce. In Romania the debtor or the creditor has the right and obligation to start the insolvency procedure, respective the bankruptcy. Both
juridical persons have the interest of starting on time the insolvency procedure: the creditor because he has increased chances to recuperate the granted credits and the debtor because he pays his debts, he exonerates of the juridical stipulations, which can get to privation of freedom.

For starting the insolvency procedure there have to be defined the utilized mechanisms, the responsibilities of the insolvency statute and the criteria of activating the bankruptcy procedure.

In the countries being in transition, the criteria that appreciate the insolvency of a company are:

- Lack of liquidity;
- The criteria of over-gearing;
- The imminent permanent insolvency.

The criteria of the incapacity of cert, liquid and eligible debts payment is used most frequently.

The criteria of over-gearing is based on the balance analysis, that is the document which reflects the company’s situation, can offer very exactly the probability of producing some insolvency situations in the future.

The criteria of the imminent insolvency is relatively new in the legal field of bankruptcy. This criteria stimulates the debtor company to take all the possible measures for paying the creditors, before the company gets in the insolvency situation. For a company with payment problems, a responsible activity of the manager is able to prevent, in many cases, the state of insolvency and to avoid all the negative consequences that follow it.

In Romania, the criteria of the imminent insolvency was introduced in year 2002. The document stipulates that, when a debtor is threaten of insolvency, he can ask for declaring the insolvency procedure. The same document shows that, if the insolvency procedure is introduced too early, on the basis of bad faith, this could bring the debtor’s patrimonial responsibility.

For the success of the insolvency procedure, one thing is sure: the manager of the debtor company has the obligation to start the insolvency state before the company reaches this state effectively. Managers know better their company’s situation from their daily experience or from partial balances; they have to be transparent and timely, avoiding to get the company in supplementary debts, that could jeopardize the success of the insolvency procedure.

Overview: a bankruptcy procedure will end successfully if it was
launched at time. This means that, by liquidating the assets, there is the
possibility of paying all the debts and satisfying all the involved economical
parts.

This is the reason why I consider that the work’s title: “The
bankruptcy, the last lifebelt” is correctly formulated.

The bankruptcy procedure can not be efficient without developing an
institutional network, adequate for this purpose. These institutional
networks have to function perfectly, in order to process opportunely and
fairly the insolvency statements.

Through the community aquis, the legal base regarding the
insolvency procedure is the Rules of the EC Council no. 1346/2000. This is

The bankruptcy procedure stipulated in the EU Rules establishes 4
criteria:

1. The procedure has to be cumulative, this means to give the
possibility to all the creditors to satisfy their demands;

2. The procedure will be activated only at the certification of the
bankruptcy situation and not for additional reasons, particular
interests. Testing the insolvency is made according to the laws in
force.

3. The bankruptcy procedure can totally or partially deprive the
debtor of some assets or prerogatives. In consequence, the debtor
can lose its management right on the company he led to
insolvency.

4. Through the bankruptcy procedure, a liquidator is named, who
takes over the prerogatives of the former manager of the debtor
company. This transfer is originating from the legislator’s
intention to control the debtor’s actions, in order to prevent the
decisions that could affect the repayment process of the
creditors.

In Romania, the laws regarding the bankruptcy has been changed
several times, in the present, the bankruptcy procedure being stipulated by
Law 64/1995, completed with other documents, as: Law 99/1999, Law
82/2003 and Law 199/2004, the last one valid since May 12,2004.

The European Bank for Reconstruction and Development – EBRD – and
also the Romanian Laws regarding the bankruptcy – identifies the 3
possible features of the bankruptcy procedure:
1. The Romanian law allows to a bankrupt but honest company to continue its business, being exempted of the debts accumulated in the previous business.

In my opinion, such a matter is questionable, because behind this stipulation the interests of some legislators, being in conflict of interests, could be hidden. This expression has personal character.

2. The laws promote the policy of fairness, which means the fair distribution of the debtor’s assets to the creditor, in the range’s order.

3. The law stipulates also the rescue policy, applied in the firm’s restructuring and rehabilitation, in order to maintain the jobs, to pay the creditors and to produce profit.

The Romanian law regarding the bankruptcy has a permissive character, which can not establish the order, discipline and responsibility in the business area. The Romanian laws for bankruptcy presents the specific features generated by the period of economical transition.

We believe that, worthy of consolidation the Romanian economy, the Romanian laws corresponding to the insolvency state will be improved and will become much restrictive.

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ON RURAL DEVELOPMENT CHARACTERISTICS IN TINCA-BEIUS AREA

STUDII PRIVIND UNELE CARACTERISTICI ALE DEZVOLTĂRII RURALE ÎN AREALUL TINCA-BEIUSĂ

L.SÂMBOTIN*, GH. SÂRB**

In this paper we have studied the problems of sustainable rural development in Tinca Beius. We have studied aspects regarding the technical equipment of the territory, demography and manpower resources, education, culture, and arts, etc. The main component of the sustainable rural development in this area is agricultural production. The area has economic and natural resources that encourage the development of ecotourism, along with its variants: agrotourism, rural tourism, and health tourism.

Key words: sustainable rural development, infrastructure, resources, agrotourism.

In Tinca-Beius area, agriculture, through its produce, has an important weight in its economy. The level of the general economic-social development of an area depends strictly on its infrastructure. The economic-social development, in its turn, implies a certain degree of development and work force qualification. Or, more exactly, work force and economic-social development depend on one another. The economic-social health of an area depends strictly on the biological health of populations living there. Thus, public health represents a “sine qua non” condition of the rural development, and in the same time a final objective desired unyieldingness. On the other hand, infrastructure, work force, educational and sanitary system represent co-ordinates that define pragmatically the level of the rural

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development of a certain area, therefore, we’ll make a synthetic analysis of theses sustainable rural development parts.

1. TECHNICAL EQUIPMENT OF THE TERRITORY

Technical equipment of the territory is a primary condition in order to eradicate economic underdevelopment levels in rural areas. Territory establishment and technical equipment of rural areas in most West-European areas are set by the law. According to scientists the total of the laws that settle the economy, the rural society, on the whole, are comprised in the rural code.

Special literature define clearly the most important objectives of the sustainable rural development. These can be synthesized as following:

a) Supporting all possible ways of sustainable and complex development of the rural area;
b) Generating by economical means the demographic equilibrium between the rural and urban areas;
c) Promoting on a large scale the non-agrarian activities in the rural areas, in order to become much complex under economical aspect;
d) Optimizing the economical structures in concordance with the economical resources that exist in the rural areas;
e) Preparation of the labor forces in concordance with the structure of the economical activities in the rural area.

The main purposes of the territory’s organization in the rural area are:

1. Land reorganization;
2. Increasing the exploitation’s surfaces;
3. Increasing the surfaces of the component plots;

The projects for organizing the territory stipulate a large scale of measures regarding the territory’s equipment, respective creating an infrastructure that could assure the maximum capitalization of the development resources of the given territory. An infrastructure project, which leads to the technical equipping of the territory, provides for the achievement of:

1. Road transport networks;
2. Communication networks;

Table 1 presents some elements that represent the contain of the territory’s technical team and also the residence of the studied area. A much complex
analysis of the territory’s equipment is very necessary, because we start from the idea that the technical level of the territory’s equipment represent a consequence but also a reason for the lasting rural development.

As it regards the total fund of residences, we notice that the livable-in surface that corresponds to an inhabitant is comprised between 14,18 m² in the locality Beiuș and 25,52 m² in the locality Cociuba Mare. It is interesting to present the fact that, in Beiuș, a small urban locality, the livable-in surface for an inhabitant is smaller than in each of the 4 analyzed rural localities: Holod – 18,8 m²/inhabitant, Tinca – 16,57 m²/inhabitant, Olcea-19,78 m²/inhabitant and Cociuba Mare – 21,52 m²/inhabitant. We consider that the main reason of this situation is owed to the fact that, in the urban areas, the population get and waited hard for the repartition of an apartment, which is a type of residence with a much smaller surface/inhabitant than in the rural area. Here, the rural population has built private property residences, according to the village habit from many years ago, houses with more rooms, having large surfaces. It is known that a big part of the livable-in surface was not used currently in this purpose, being kept in preservation and used only in the period of the relatives or other persons’ visits. The reality in the studied area is that, the rural area has much adequate residences than the city of Beiuș.

Table 1 - Territory equipment of the studied area

<table>
<thead>
<tr>
<th>No.</th>
<th>Analysed indicator</th>
<th>Locality</th>
<th>Beiuș</th>
<th>Holod</th>
<th>Tinca</th>
<th>Olcea</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Total area, ha</td>
<td></td>
<td>2446</td>
<td>6607</td>
<td>14199</td>
<td>8609</td>
</tr>
<tr>
<td>2.</td>
<td>Existent residence (no.)</td>
<td></td>
<td>3999</td>
<td>1513</td>
<td>2928</td>
<td>1060</td>
</tr>
<tr>
<td>3.</td>
<td>Public residence</td>
<td></td>
<td>63</td>
<td>20</td>
<td>29</td>
<td>2</td>
</tr>
<tr>
<td>4.</td>
<td>Private funds residence</td>
<td></td>
<td>3936</td>
<td>1493</td>
<td>2829</td>
<td>1058</td>
</tr>
<tr>
<td>5.</td>
<td>Livable in surface (sqr.m.)</td>
<td></td>
<td>161879</td>
<td>64021</td>
<td>124314</td>
<td>54927</td>
</tr>
<tr>
<td>6.</td>
<td>Public livable in surface</td>
<td></td>
<td>1482</td>
<td>652</td>
<td>1136</td>
<td>98</td>
</tr>
<tr>
<td>7.</td>
<td>Private livable in surface</td>
<td></td>
<td>160397</td>
<td>63369</td>
<td>123178</td>
<td>54829</td>
</tr>
<tr>
<td>8.</td>
<td>Town streets</td>
<td></td>
<td>31</td>
<td>9,5</td>
<td>44,7</td>
<td>26,8</td>
</tr>
<tr>
<td>9.</td>
<td>Modernized town streets</td>
<td></td>
<td>20</td>
<td>-</td>
<td>4,5</td>
<td>-</td>
</tr>
<tr>
<td>10.</td>
<td>Drinkable water network length</td>
<td></td>
<td>45,7</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>11.</td>
<td>The sewerage network, km</td>
<td></td>
<td>32,8</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>
We cannot make the same considerations regarding the understructure elements, as: the length of the modernized streets, the length of the drinkable water network and of the sewerage network. These understructure elements are present in the city of Beiuș and are absent in the analyzed rural area. We consider that a part of these are a consequence of the local authorities lack of initiative, that counted on the local habits, on the local communities conservatorship and did nothing or almost nothing to stimulate the desire of the rural inhabitants to have drinkable water and sewerage. We also consider that, in the context of some rational politics, the rural communities in the area will be ready to contribute financially, together with the Romanian State, to implement some project for water supply and sewerage.

2. DEMOGRAPHY AND MANPOWER RESOURCES

The 3 resources of a lasting development are: the land fund, the capital and the manpower. The manpower plays the active role. None of the remaining 2 factor can not be effective without the intervention of the third one, the human resources. In Table 2 there are presented some aspects regarding the demographic and the manpower situation.

Table 2 - Demographic and the manpower situation in year 2002

<table>
<thead>
<tr>
<th>No.</th>
<th>Analysed indicator</th>
<th>Beiuș</th>
<th>Holod</th>
<th>Tinca</th>
<th>Olcea</th>
<th>Cociuba Mare</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Total number of population</td>
<td>11417</td>
<td>3401</td>
<td>7500</td>
<td>2776</td>
<td>3193</td>
</tr>
<tr>
<td>2</td>
<td>Of which women</td>
<td>5841</td>
<td>1754</td>
<td>3833</td>
<td>1408</td>
<td>1604</td>
</tr>
<tr>
<td>3</td>
<td>% women</td>
<td>51,16</td>
<td>51,57</td>
<td>51,11</td>
<td>50,72</td>
<td>50,23</td>
</tr>
<tr>
<td>4</td>
<td>Total wage-earners</td>
<td>4149</td>
<td>228</td>
<td>779</td>
<td>115</td>
<td>139</td>
</tr>
<tr>
<td>5</td>
<td>Of which: in agriculture</td>
<td>12</td>
<td>1</td>
<td>14</td>
<td>-</td>
<td>2</td>
</tr>
<tr>
<td>6</td>
<td>Total wage-earners in industry</td>
<td>2142</td>
<td>13</td>
<td>200</td>
<td>1</td>
<td>14</td>
</tr>
<tr>
<td>7</td>
<td>In processing industry</td>
<td>2037</td>
<td>-</td>
<td>151</td>
<td>1</td>
<td>14</td>
</tr>
<tr>
<td>8</td>
<td>In heat energy, gas, water</td>
<td>105</td>
<td>13</td>
<td>25</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>9</td>
<td>In constructions</td>
<td>135</td>
<td>13</td>
<td>32</td>
<td>12</td>
<td>-</td>
</tr>
</tbody>
</table>
A first conclusion that results by analyzing the numbers in Table 2 is the women’s share in the total population. This indicator inscribes in the general variation range registered in the entire Romanian and even European society, comprised between 50.23% in the locality Cociuba Mare and 51.57% in the locality Holod.

A not favorable aspect for the rural environment refers to the number of employees. If in the small town of Beiuș, a great part of the active population is employed, then, in the rural area, the employees’ share is very small. If in the small urban locality Beiuș, the number of employees is 4194 persons from a total population of 11417 persons, then, in the 4 rural localities, the number of employees decreases dramatically until 115 persons in the locality Olcea. An exception is the locality Tinca, which, by some characteristics, is approaching to the urban area.

The number of employees in agriculture is also very small, from 1 to 12, represented only by the specialists occupying the stipulated functions, at the Commune Agrarian Centers.

As it was expectable, the main part of the employees from the localities characterized by a higher development level – Beiuș and Tinca – is occupied in the industry, 50.07%, respective 25.67%. A relatively equal number of employees activate in the field of communications, commerce, post-offices and transports. In education and health sector, the employees’ range in the total of the 5 localities are considerably equal; the deducted result is some parity regarding the number of inhabitants/employee, in education or in the health sector.
Education represents an essential activity, which each community, inclusive the rural ones, have to promote consistently. Education satisfies the intellectual requirements of people and provides afterwards the qualification process of the manpower. Owing to, it is not sufficient that an area, a region to have a population numerical sufficient. The population should have its own level of education and professional training. Definitely, the education demonstrates the most the good sense of the Latin dictum: “non multa, sed multum” (not many, much).

In Table 3 we present some aspects regarding the activity in the education sector. It is interesting the fact that the larger number of learning units is not located in the city of Beiuş, as it was expectable, but in the rural localities Holod and Tinca. It is correct that the city of Beiuş, according to the definition of the European Rural Space Chart, is part of the rural space, but its still a small urban locality.

Only 2 of the 5 localities have high-schools: Beiuş – 3 and Tinca – 1.

Table 3 - Activity in the education sector, in year 2002

<table>
<thead>
<tr>
<th>No.</th>
<th>Analysed indicator</th>
<th>Beiuş</th>
<th>Holod</th>
<th>Tinca</th>
<th>Olcea</th>
<th>Cociuba Mare</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Educational units</td>
<td>8</td>
<td>13</td>
<td>11</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>2.</td>
<td>kinder garden</td>
<td>3</td>
<td>6</td>
<td>6</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>3.</td>
<td>primary and high-school</td>
<td>2</td>
<td>7</td>
<td>4</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>4.</td>
<td>high-schools</td>
<td>3</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>5.</td>
<td>children admitted to a kinder garden</td>
<td>415</td>
<td>108</td>
<td>275</td>
<td>120</td>
<td>104</td>
</tr>
<tr>
<td>6.</td>
<td>total pupils</td>
<td>3816</td>
<td>291</td>
<td>1211</td>
<td>157</td>
<td>302</td>
</tr>
<tr>
<td>7.</td>
<td>pupils admitted to gymnasium</td>
<td>904</td>
<td>123</td>
<td>462</td>
<td>167</td>
<td>145</td>
</tr>
<tr>
<td>8.</td>
<td>pupils admitted to professional education</td>
<td>378</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>9.</td>
<td>pupils admitted to high-school</td>
<td>1827</td>
<td>-</td>
<td>265</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>10.</td>
<td>pupils admitted to technical school</td>
<td>86</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>
The pupils’ range in the total population is very different. If the 2 localities, having a social-economical development level closer to the normal, present higher values: Beiuș 33,42% and Tinca 16,14%; the 3 rural localities have much lower ranges, under 10% and even 5,65% in the locality Olcea. As a consequence of the effective researches, we noticed that this indicator is easily “altered” by the natural migration of the pupils that graduated the gymnasium from the high-schools in the localities, Beiuș and Tinca.

The teaching personnel in the pre-school and gymnasium education is numerically inscribed in a variation, correlated with the total population and the school-aged population of the analyzed localities. The personnel in the health and social care sectors present a similar dynamics.

In Table 4 we present some indicators that characterize the activities in culture, arts and health sector in year 2002. The number of libraries is a recognized indicator of an area’s cultural level. From this point of view, we can notice the followings: in the city of Beiuș, a library corresponds to a population of 1631 inhabitants, in Holod 1134 inhabitants, in Tinca 1875 inhabitants, in Olcea 555 inhabitants and in Cociuba Mare 639 inhabitants. The number of TV subscriptions also represents an indicator of the people’s cultural level. From this point of view, we notice the following arrangement: in Beiuș, a TV subscription corresponds to 4,8 persons, in Holod to 11,1 persons, in Tinca to 7,3 persons, in Olcea to 16,2 persons and in Cociuba Mare to 7,9 persons. The same differentiation is noticed for the localities.
Beiuş and Tinca towards the other analyzed localities.

Table 4 - Indicator analysis in culture, arts and health sector in year 2002.

<table>
<thead>
<tr>
<th>No.</th>
<th>Analysed indicator</th>
<th>Locality</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Beiuş</td>
</tr>
<tr>
<td>1.</td>
<td>total libraries</td>
<td>7</td>
</tr>
<tr>
<td>2.</td>
<td>radio subscription</td>
<td>1195</td>
</tr>
<tr>
<td>3.</td>
<td>tv subscription</td>
<td>2380</td>
</tr>
<tr>
<td>4.</td>
<td>hospital beds</td>
<td>305</td>
</tr>
<tr>
<td>5.</td>
<td>nursery beds</td>
<td>25</td>
</tr>
<tr>
<td>6.</td>
<td>total medical doctors</td>
<td>34</td>
</tr>
<tr>
<td>7.</td>
<td>stomatologists</td>
<td>11</td>
</tr>
<tr>
<td>8.</td>
<td>pharmacists</td>
<td>11</td>
</tr>
<tr>
<td>9.</td>
<td>sanitary personnel</td>
<td>193</td>
</tr>
<tr>
<td>10.</td>
<td>hospitals</td>
<td>2</td>
</tr>
<tr>
<td>11.</td>
<td>pharmacies</td>
<td>9</td>
</tr>
<tr>
<td>12.</td>
<td>private consulting rooms</td>
<td>12</td>
</tr>
<tr>
<td>13.</td>
<td>private dental surgery</td>
<td>6</td>
</tr>
<tr>
<td>14.</td>
<td>Dental engineering labs</td>
<td>8</td>
</tr>
</tbody>
</table>

The only locality having hospital units is Beiuş, that has a number of 2 hospitals with 305 beds and 35 medical doctors. Setting up a hospital with adequate dimensions in the locality Tinca will be more than useful.

Stomatologists and pharmacists are present in every locality, in Tinca and Beius there are private consulting rooms.

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BETWEEN PRESENT AND FUTURE TOURISM

TURISMUL – PREZENT ȘI VIITOR

L. SĂMBOTIN*, GH. PRIBEANU**

As time goes by, the beginnings of tourism get obscured and mix up with different realities, from recreation journeys to mass-tourism, so that it develops into a major field of the national economics. Therefore, this field needs coherent regulations meant to set an efficient system of breaking up with former bureaucracy and to support the public-private partnerships which would make the tourism patrimony develop.

Key words: rural area, efficient development policies.

The concept of “tourism” is very complex and the researchers use different meanings when defining it. Given its origin (the Latin turnare – “to turn” and turnus – “circular movement”), the term means “a journey” (circular movement of people) followed by the returning to the departure place (residence), and it can be found as such in most of the international languages (French tourisme, English tourism, Italian turismo, German tourismus, Russian turizm, etc.)

The beginnings of tourism are somehow obscured by the flow of time. It’s highly possible that people have taken up journeys for recreation immediately after they left behind their ancestors, whoever they may have been. The Romanian youth’s study journeys to Greece were frequently present during Antiquity, as well as those related to the Olympic Games. The Middle Age period brought along visits to the famous temples, whereas the Renaissance witnessed the reality of traveling for recreation, as well as journeys related to the intellectual quests. The business trips are favored by the capitalism and the early 19th century brings in the term “tourist” in Great Britain, derived from the French word tour, which was meant to stand for the English young men who would perform the so-called grand-tour of

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France for fun or rest. Tourism has recorded a special development, especially after the 2nd World War.

Beginning with 1942, it has been defined as “the assembly of relations and acts constituted by the movement of people spending time away from their usual residence, without the presence of a motivation connected to a certain workplace activity.”

In 1963, the Rome Conference of the United Nations, concerning the international tourism and trips, adopted a definition widely used in most of the worldwide states, and it is based on two main elements: the reason and the duration of the journeys.

The Conference of the World Tourism Organization held at Ottawa on July 1991 redefined the term standing for tourism, pointing out that this term signifies the activities undertaken by the persons who travel to some places away from their residences for a period of 24 hours or at least for a night, no more than one year, in order to spend the spare time, for business or other purposes, that is for other purposes than some paid activities at the visited place.

Ranged among services, tourism has all the corresponding characteristics. Moreover, it has its own particularities, such as: season demands (waving between dead and peak seasons), its complexity and intensity varying a great deal (weekly, monthly, yearly, etc.), being closely related to the spare time; the interdependency of the touristic products, its beneficiary being always dependent on chronological and causality interconnected materials and services (in order to visit one’s home place 200 km away; it’s necessary to make use of a previously established transport means and then of some accommodation, etc.); the high level of fixed costs, determined by the rigid character of the offers and by the unstorable aspect of the services (by the necessary replacement of the product stocks by that of efficiencies – transport, housing, etc.).

Tourism, as a major component of the tertiary sector, has succeeded in quickly imposing itself over the social and economic life of the late 21st century due to its spectacular development. This remarkable evolution begun in 1950 is due to the general economic growth coupled with a series of influential factors: the increase in the spare time and paid leaves, the improvement of the long-term income, but especially the transport revolution – a few factors that made the trips more frequent, rapid, comfortable and accessible.
Increasingly more countries begin to enjoy the benefits of tourism: new workplaces, new unexpected resources, the steady balance of external payments, and the infrastructural improvement – a positive macroeconomic development. Moreover, due to tourism, some countries redefine their national identity, consequently improving their international status. That’s why tourism becomes a very important factor in the national and international development policy.

Between 1950-1977, the world population has increased 2.5 times and the number of arrivals in the international tourism has in turn increased more than 20 times compared to the situation in 1950, when there were only 25 million arrivals registered – that ends up in a 10 times quicker growth rhythm.

In the 1970s and 1980s, the Romanian mass-tourism developed and the touristic services improved, giving way to a genuine industry of the “white collars” that allude to the suits of the workers belonging to the hotel and public alimentation industry.

This development, that reached its peak in the “mass-tourism” era, is mainly due to the major evolution of the industrial sector, which provided people with discretionary incomes, spare time and motivation. Later on, the period marked by world recession, which affected the tourism of 1982 and 1983 too by rhythms of sub-unitary growth, is characterized by the advance in the price of petrol, and then by a cost-push inflation (the advance in the inflation rate), the dollar enforcement, the advance of the unemployment rate and the IT revolution. The last one causes major changes at the level of all fields concerned with the social life, bringing about further dynamic changes, by means of easily spreading around large amounts of information.

The 1990s initiate a new IT era, which, on the way to its peak, has produced a series of innovations. Actually, this is an ongoing process and it explains the decrease in the touristic rate due to these particular changes.

Tourism stands for the means of change and development in people’s life, expressing cultural identities and breaking the economic barriers and prejudices.

We witness an ambitious but equally hard to achieve objective. This is due to a time of conflicts and important changes at all levels of the human society.

The failure of the old institutions, on the one hand, and the successful introduction of a new way of thinking and power, on the other
hand, is the proofs of a common tendency present even one hundred years ago: i.e. the tendency of an increasing human interdependency and integration.

Twenty years ago, the agro-tourism was officially introduced in Romania by promoting some rural areas with special folkloric cultural features and scenery as touristic villages. This brought in a definition accepted in other countries too, which ranges the touristic villages among highly organized picturesque rural areas, placed in an unpolluted environment, preserving the traditions and having a significant history, which, except for the political, administrative, socio-cultural, economic functions, perform a partial or yearly function of welcoming and housing the tourists who want to spend a certain time there.

It’s an obvious reality that, though Romania possesses a special touristic capacity and it has represented a special attraction of the international tourism, there is a serious crisis however, namely due to the lack of definite regulations and coherent strategies in this field.

Given the major importance of tourism for the national economy, the legislation needed immediate development and the introduction of a solid foundation for the evolution of the touristic industry would in turn determine a significant growth of the life standards of hundreds of thousands people involved in this field and it will produce many workplaces (implicit available jobs). In addition to these, the touristic investment will have benefic effects on the horizontal economy and especially on the agriculture, animal growing, infrastructural development, etc. The foreign currency incomes, which will increase as an effect of the external touristic growth, represent another important argument.

We consider that the field of touristic services needs definite regulations meant to improve the system of leaving bureaucracy behind and to support the public-private partnerships, that emphasize and develop the touristic patrimony.

The education system plays a very important role in the touristic development and the public or private education units will introduce some topics specialized in this certain field in order to provide the people employed in the touristic services with a profession-oriented education.

Every tourism agency or unit must possess a touristic license, which would prove its professional capacity, and a second one, which would state its capacity of performing quality and safe services. Then, they must ensure
their tourists’ protection as well and, consequently, the tourists have to be properly informed with respect to the touristic services they are to be offered.

In order to promote tourism, a tourism agency must protect the tourists who use such services as trips according to the norms regarding the guidance and management of tourists; it must protect the tourists’ belongings against damage or theft, and it must also provide them with legal redress in case of harmful acts; tourists must also be insured against the tourism agency’s insolvency or bankruptcy; it must offer facilities in case of organized tourism activities, for pupils, students, retired men, journalists, groups of people, tourism employees.

In order to help tourism develop and to encourage potential investors, the statesmen must offer certain facilities according to the community laws as far as the state support is concerned, meant to cause a real economic growth in tourism, as follows: they must support the touristic activities by means of policies and economical-financial mechanisms and actions meant to manage and protect the touristic patrimony; they must introduce programs which would make the cultural-educational, medical, religious, mountainous tourism develop and they must act in order to attract foreign tourists; they must offer certain facilities for: the economic agents in tourism with a certain turnover; the natural and legal persons who are involved in agro-tourism, so that they would not have to pay taxes and duties for the income obtained by trading the alimentary products taken from their own households or farms and from their own hunting or fishing activities; the commercial agents who deal with timely touristic activities; the touristic units that practice mountainous tourism and that must be charged with a discount in the AVT; the value of the investments placed by natural or legal persons in a financial activity for the touristic development are to be completely deduced when the global income tax is established and, accordingly, the profit tax until the co-occurrence of the owed liability; they must support and encourage the free innovative ideas meant to promote and develop the touristic activities and, especially, to stimulate and encourage foreign tourists to visit Romania, as well as to develop the activities performed in the tourism resorts by: adopting adequate regulations regarding the use of the social health insurance in the case of medical prescriptions which advise having rest in certain tourism resorts; organizing activities that promote tourism both internally and externally; they must
lease the explorer’s right for 49 years, as provided by law, over certain public or private lands or those of some administrative-territorial units, in order to make the building of touristic structures possible; they must organize marketing and promotion programs and they must also finance or co-finance certain support and advertisement activities regarding the touristic offers at the level of internal and external market – as far as the available sums would make it possible – fairs, exhibitions, advertisement programs, research visits of the mass-media representatives and tourism agents – and it should set patterns of information and promotion as far as tourism is concerned.

Given this reality, the Romanian tourism is expected to develop good medium and long term perspectives.

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One could get to know the features of the rural areas only by a series of experiments based on research grounds that develop into an increasing need of rediscovering and revisiting the countryside. All the generations that use the benefits of the rural areas that provide people with healthy and comfortable surroundings – the water, the air, the forests, the relief and especially the people themselves have to be the permanent concern of the human society in general, and every individual in particular, so that we will not have to witness situations of turning a blind eye to certain major problems which may occur.

Key words: tourism, tourists’ accommodation, touristic capacity

„Our country can be fairly considered as one of the most rare gifts of the Earth.” Given the amazing description offered by Simion Mehedinţi in his work entitled Romania, the Romanian ground and people, one can define “the rural area” as a region set in an inner land, which includes small villages and towns and provide people with lands for the following uses: agriculture, aquaculture, forestry and fishing; economic and cultural activities adapted to local purposes (rural services, local industry, workmanship, etc.) national parks; other facilities (except for dwellings)

It all starts as a cognitive experiment meant to make us familiar with the rural area and it goes on as a permanent research which ends up in an ongoing desire to rediscover and revisit the places over and over again. It’s difficult to find the suitable words to express the variety of thoughts and feelings aroused by the intensity of emotions felt by whoever may cross the Carpathian - Danubian region. Here is a list of the elements which are worth a closer attention: restful, aesthetic and scenery resources, that count a great deal for the choice of the destination (mountains, hills, plains, seaside, delta); a place which provides the adequate surroundings where one can

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relax and practice one’s hobbies (water mirrors, mountains, caves, torrents, cynecgetic resources, snow layers, etc.); the cognitive value of the features such as parks, botanical gardens or zoos, scientific resorts or natural monuments, etc.

All these features are closely related and they build up the framework of “Mother Nature”, which is the life scene of everything developing inside. These characteristics get emphasized as one approaches, acknowledges, studies and analyses them from the scholar’s viewpoint present in each of us and challenged by every study based on thorough research and logic analysis.

The setting into the required European standards was directed by the Recommendation no. 1286/1966 of the Parliament Assembly of the European Council concerning the European Chart of the rural area; the third European Forum held in Verona on March 1995; the second article of the Project of the European Chart of rural areas, issued by the Agriculture and Rural Development Commission of the European Council. The European Community considers the rural area and countryside life as common property of all the European inhabitants, who live both in rural and urbane structures, and the high potential of the rural space is of common interest; therefore, the European Community considers and finances the local initiatives and individual projects of various regions.

Features such as the individuality, authenticity and specificity of the rural area differentiate it from other regions such as: industrial or urbane areas. As for the economic structure, the agricultural activities spread over the largest region, so that agriculture builds up the “rural spine”. The mountainous areas, as well as the piedmontan ones – the forestry and the common agricultural activities, the forest exploitations, the wood processing, the handicrafts and home activities, the forest resources processing by means of small-scale industry are all prevailing territorial and trade features. Nevertheless, the major activity in the rural area is mainly agricultural. The expansion of the production and processing of the main agricultural and forestry products is a must, so that the rural area will produce more added value which would determine an implicit local economic growth and the socio-economic development, which will in turn break the village-town civilization gap.

The introduction of advanced production technologies influences the agricultural productive growth that would release a significant part of the
corresponding labor force. This can be used by adapting it to works such as industrial or semi-industrial service charge or collateral services such as public alimentation, organizing agro-touristic farms, introducing ecological programs in production and processing sectors, without invading the local characteristics of the authentic Romanian village.

The development of non-agricultural activities – harmless to the rural areas – is also a must, meant to maintain the rural authenticity.

The extra labor force, released from the agricultural field, can perform full-time jobs in small enterprises processing agricultural ecological produces and services, as well as part-time jobs in specific agricultural labors or works based on the complementariness in relation to the main agricultural activities.

According to the rural policies applied by West-European governments, one of the main milestones is the principle of integrating the agro-alimentary activities in the rural context. Once this principle is applied, the regional or local procession of agricultural produces, berries and natural medicinal herbs must constitute a permanent goal of the deciding forces.

The transport of the end agro-alimentary produces is easier than handling the alimentary raw materials taken from agriculture and forestry, and this reality determines the investments development in the agro-alimentary and handicraft fields in the rural localities.

The socio-cultural infrastructure and education development as well as the financial, the banking and the credit system expansion is imminent as a result of modern agricultural policies and the introduction of the agro-alimentary industry that have directed the interest towards villages.

The tendency of moving in the rural areas must, nevertheless, be kept below the negative limit which would bring along the alteration of the Romanian village individualized by its archaic cultural features and principles, and its healthy social convivial set in local and regional patterns.

Once these principles are applied, the agricultural area must be reinforced and preserved beyond all alterations of its main characteristic or rural lifestyle, without diminishing the rural features themselves. Obviously, the successful methods applied in Western Europe cannot be completely followed as such, because the concrete social background, which exists or will be present in the future society, must be taken into account.

We are the heirs of some of the richest, diversified and mainly constant European rural regions. There are many European peoples which
lack such a natural legacy with unique landscape such as Danube Delta or the Carpathians Mountains.

Moreover, every state has its own national ethno-cultural and artistic particularities which should not be left aside, but integrated into an attractive and functional European context.

A multifunctional agriculture reports a lower profit than an intensive and specialized one, but it makes up for this loss by means of other results in fields such as tourism, ecology, scenery, ethno-culture and social background.

Besides basic functions such as: producing raw alimentary materials and necessary aliments; producing raw materials for the non-alimentary (processing) industry; producing energetic raw materials (an important function of the areas abounding in alimentary production), there are also other functions to be taken into account, such as: increasing the tourism capital – the scenery wealth being preserved and developed; preserving the vital elements (land, air, water, vegetation, animals) by the practice of an ecological agriculture and the rational exploitation of forests, which is meant to ensure the ongoing stability of eco-systems and the life preservation on the Earth; ensuring an organized and diverse agriculture, which would in turn help harmonize the socio-cultural functions of the rural area.

The tendency of “Europeanizing” and “globalizing” the East-European countries into the European Union, as well as the attempt of comprising the transit period cause common problems and characteristics of the agriculture, such as: the citizen reacts more efficiently to the community problems in the rural medium, when the density is lower and the social relationships are better; the natural landscape made up of characteristic flora and fauna is more appreciated by most of the people; the customs, traditions and overall rural life make up the local folk culture.

The effective rural development must correspond to the present needs, as well as to the future ones. The nowadays people’s awareness has to be appealed to as to take into account the setting of life continuity on Earth in proper conditions and parameters necessary for the maintenance of people’s health and the continuity of vegetal and animal species.

The complex concern as a global goal for an effective rural development is aroused by the uncontrollable urban expansion which leads to the alteration of nature and eventually to poorness. That’s why a complex
and determined deciding force in this field is required as necessary. The efficient rural development brings forth two major problems: the economic growth without negative effects on the life quality on Earth (as far as our behavior is concerned) and the reinforcement of the environmental protection.

Dealing with these major problems should, nevertheless, be harmless to the life conditions of the next generations.

The concept of “effective development” is related to three dimensions: a time dimension – which limits the increase in ecological elements. The resources exhaustion and the irreversibility of decrease processes are the elements considered here; the environment – is the most fragile and independent of the human power; the notion of equity – represents the concern for the next generations without further sacrifices for the present ones.

The balance of the “resource – need” relation will be achieved by taking into account the factors that influence the efficient development as follows: population, environment, food, industrial progress and pollution.

Protecting the nature as the one and only life source is valid for the present as well as for the future time. The main cause of the ecologic calamities is the human-being itself, who, due to human greed, negligence and indifference, does not select nor correctly apply the scientific and technological innovations in order to protect nature, instead of destroying it. People must mind the nature laws and provide the ecological equilibrium.

Pollution is the greatest enemy of nature, environment and of people. The practice of intensive and industrial agriculture itself is a main pollution factor. The irrational use of chemical fertilizers and that of toxic phyto-sanitary substances negatively influence the sole quality, which takes a very long time to be restored at the normal parameters to allow an ecological agriculture. The widely spread agriculture is greatly influential and it has also got worse consequences.

The rural development in our country differs from the one of the Western Europe as follows: we still have unpolluted soles with specific flora and faun, areas preserved in their authentic natural setting and even some unexplored lands.

An important objective of the sixth Action Plan concerning the environment, as far as the protection of the sole against pollution and erosion is concerned, refers to the focus on already existent initiatives, on
the integrated protection of the sole – mainly in agriculture and forestry –, as well as on the preservation of the sole.

The worldwide concern for the preservation of the quality of the water, air and sole is a permanent duty of the rational people, of all the dwellers of this planet and the preservation of the characteristics of the rural areas by means of a rational and preventive exploitation leads to the fulfillment of this goal.

There is only one sensible conclusion, given the circumstances: all generations that enjoy the benefits of the rural areas, with its unique elements that provide the adequate conditions for people’s health and comfort, such as – water, air, forests, relief and especially the population of these areas – must be continually minded by the human society in general and every individual in particular, so as to ensure a permanent and universal preservation and protection.

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The paper presents the main current and future issues in rural development for the counties of Timis. Problems linked to the definition of the concept of Romanian and European rural development are put forward, while evidencing quantitative and qualitative aspects regarding rural development, together with live quality aspects in rural area, in the Timis county. Also taken into discussion are new directions of development, looking forward to Romania’s European integration and sustainable rural development in rural area.

Key words: rural development, enhancement, process, future


In the context of the efforts Romania is making now for its integration in the European area, one should analyse the matter of rural development in Romania in agreement with the requirements of the rural area European Charta, a frame, political and juridical document of rural development and management in Europe.

Romanian rural area is mainly an agrarian area in which is predominant private-family ownership with low population density, with a social and traditional cultural-folk life specific to the area that lacks a proper infrastructure to ensure its economic development and a social life at the level of the requirements of the 3rd Millennium.

Defining the rural area and interpretations given in time by different authors are interesting and they represent starting points in a complex approach of the matter of rural development. Romanian rural area is 97.3%
of Romania, compared to 88.7% in France and 85% in Europe, which directly or indirectly affects more than half of the European population.

According to the Recommendation 1296/1996 of the Parliamentary Assembly of the Council of Europe, rural area is defined as follows: “the phrase rural area has in mind an inner area including villages and small towns, in which most of the lands are used for: a) agriculture, forestry, aquaculture, and fish farming; b) economic and cultural activities of the inhabitants of these areas (handicraft, industry, services, etc.); c) management of non-urban areas for leisure and entertainment (or of nature reserves); d) other uses (except dwelling ones).”

It is important to make the distinction between traditional, contemporary, prospective, and modern rural areas. The rural area should be seen in its historical evolution, as it is a dynamic environment in permanent evolution and confrontation with the environment, with a view to sustainable rural development.

Rural development and rural area should not be limited to Romanian village alone, as this also contains the inner side of the village and the outer one, together with population and its social, economic, and cultural activities.

Rural area in Romania is made up of the administrative area of 2786 large villages grouping together 13,343 small ones, over an area of 21,276,000 ha (i.e. 89% of the country’s area). Rural population numbers nowadays about 10,100,000 people (i.e. 45% of the country’s population); the number of households in the rural area is 3,311,000 (i.e. 45% of the total households of the country), and there are 3,365,000 dwellings (i.e. 46.8% of the total number of the dwellings). This area is the source of most economic resources: raw materials for industry, agricultural, forestry, tourism, and spa resources.

A series of scientists contributed to the knowledge of the rural area: Virgil Madgearu, Ion Ionescu de la Brad, C. Dobrogeanu Gherea, Dimitrie Gusti, together with a series of present personalities and government and non-government institutions who will surely find their place in literature.

Mateoc-Sârb shows that “The relationship rural – urban (that represents the social environment and the geographic location of human activity) tends to integration in both senses: the rural into the urban, and the urban into the rural.”
Rural development supposes the development of an infra-structure both in the inner side (road, water supply and sewage, gas and heating supply, TV cable and telephone networks, garbage removal, comfortable dwellings, company offices that process agricultural products in the area: slaughterhouse, mill, bakery, dairy, distillery, juice and fruit and berry processing factory, frame saw, carpentry; mechanical workshop and service shop for the repair of agricultural machinery and equipment, well-equipped schools, medical dispensary, house of culture, church) and in the outer side (agricultural roads, warehouses for agricultural products, animal farms, stables, sheds, paddocks), proper means of transportation, well-managed pastures.

The prognosis for the development of all this is a problem of both the Romanian Government (ensuring proper legislation), and its representatives in the territory (prefecture, county council, and town-halls).

To mention the point of view of Andrew Shepard who presented the theory of the development of a “sustainable” rural development that, compared to the theory of “durable” one, ensures a development requiring initial financing and a lower total investment.

**Rural development** can be classified as follows:

1. **Local development**, i.e. the development of a locality and of its surroundings, including small and large villages together with their households.

2. **Territorial or regional development**, i.e. the development of bigger investments in the infrastructure of several regions (counties).

3. **Trans-border rural development**, i.e. the development of projects and programmes for border communities belonging to several countries.

4. **Pan-European rural development**, i.e. the development of European areas.

In our country they have introduced, on the ground of the Law 151/1998 concerning regional development, 8 development regions, each of which cover 4-7 counties. These 8 regions correspond to the NUTS 2 level of the European Union.

The County of Timiș is within the West region 5. Table 1 shows a few comparative statistic data for the County of Timiș, Romania and the EU.
It can be observed, from table 1, that in Timiș County the weight of rural population is below the average of total Romania, but is over twice than the EU.

Rural development is tightly linked to the territory management and urbanism activity, which is part of the public administration authority duties according to the Law 350/2001 concerning territory management and urbanism and to the Law 21/2001 concerning local administration. According to these laws, area management of the territory is a compulsory, continuous, and prospective activity, developed in the community’s interest according to social aspirations and to the requirements of European integration. Area management of the territory is done through territory management and urbanism, that constitute ensembles of complex activities of general interest contributing to a balanced area development, to the protection of the natural and built environment, and to the improvement of life conditions in rural and urban localities.

### Table 1. Statistic data concerning the County of Timiș, Romania and EU

<table>
<thead>
<tr>
<th>No.</th>
<th>Name</th>
<th>Counties</th>
<th>Area (km²)</th>
<th>Population (thousands of people)</th>
<th>Share of regions of the country’s population (%)</th>
<th>Population density (people/km²)</th>
<th>Share of rural population (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>County of Timiș</td>
<td></td>
<td>8,696.65</td>
<td>684,506</td>
<td>3.04</td>
<td>80.5</td>
<td>38</td>
</tr>
<tr>
<td>2</td>
<td>Romania</td>
<td>42 counties</td>
<td>238,391</td>
<td>22,546</td>
<td>100</td>
<td>94.6</td>
<td>45.4</td>
</tr>
<tr>
<td>3</td>
<td>Total E.U.</td>
<td></td>
<td>3,191,000</td>
<td>376,455</td>
<td>-</td>
<td>118</td>
<td>17.5</td>
</tr>
</tbody>
</table>

This activity should be: global, functional, partnership-, transparency-, decentralisation-, participation-, and sustainable development-based, to ensure development and the right for the future generations to development.

To achieve all this, one should develop, acknowledge, and approve of the following territory management acts:

a) National area management plan that has developed so far 5 sections: Communication means (Law 71/1996), Water (Law 171/1997), Protected areas (Law 5/2000), Locality network (Law 351/2001), Natural risk areas (Law 575/2001);

b) Area territory management plan;

c) County territory management plan (PATJ).
All these documents should be periodically up-dated.

PATJs play a very important role in rural development, as they concern the existing situation, problems, and priorities, and development projects concerning infrastructure, problems, and social, economic, and cultural activities in the area.

At European level, the process of urbanisation is limited by a given 80-90% of urban population and 10-20% rural population (for example, 91% in England, 85% in Germany, 80% in Canada, 55% in Romania).

The period 1944-1989 only ensured a partial local rural development (for example, electrification, water supply, sewage systems only in some localities, some road networks, etc.), based on the principles of socialist development.

The period from 1990 until now started with government and non-government programmes of development and rural management concerning both village infra-structure and the development of agriculture and of food industry specific to the rural area, i.e. services, in agreement with the new directions of the European Community specific to rural area; unfortunately, results are still few so far, as they depend on financing.

For problem areas (mountain, landslide, sandy, etc. areas – moisture excess or lack) we need special measures for a superior, efficient valorising. Thus, for mountain areas – 75,000 km², 3,500,000 inhabitants, over 1,000,000 family village households – they suggest to develop mountain tourism that needs infrastructure (highways, railways, postal, telephone, and banking services), better dwelling conditions (electricity, sanitary equipment, TV cable, etc.). It is also necessary and important to educate people in the spirit of tourism and languages.

In areas with landslides they suggest soil erosion works, and in areas with moisture deficit or lack, land improvement works: desiccation, drainage, and irrigations, respectively, as works absolutely necessary to ensure productions independent of climate conditions.

All building activities inside or outside the locality shall be done with respect for the legislation (particularly for the Law 50/1991) and with environment-friendly ecological measures.

It should be mentioned that in Romania it is necessary to make sustained efforts to solve the problem of garbage disposal, both in urban and rural areas, and to manage more green areas and parks in the rural area.
It is not necessary to develop productive and commercial units in each rural area; they should be developed through free initiative of the citizens, that should be enhanced and/or guided by local, county, or national administration (mayors, counsellors, etc.) by non-reimbursement financing programmes and/or by low interest or State-guaranteed credits.

The main projects and programmes of development in process at present are Phare, Leader, Leader Plus, and Sapard.

To note for the County of Timiş, together with the counties of Arad, Bihor, and Satu-Mare, a trans-border co-operation project together with 4 other counties in Hungary (Csongrad, Bekes, Hajdu-Bihar, Szabolcs-Szatmar-Bereg), containing a series of concrete propositions for this area concerning the infrastructure, traffic fluidity, and co-operation with neighbouring countries.

### 2. Present state of rural development in the County of Timiş

The main data that are at the basis of the notes concerning the present state of rural development in the County of Timiş compared to Romania and to the European Union are from the General Urban Plans and from literature.

The first possibility of assessing the present state is supplied by global indices synthetically presented in Table 2.

<table>
<thead>
<tr>
<th>No.</th>
<th>Indices</th>
<th>M.U.</th>
<th>County of Timiş</th>
<th>Romania</th>
<th>European Union</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Population</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Urban area</td>
<td>Thousands of people (%)</td>
<td>4222.63 (62)</td>
<td>12310.11 (54.6)</td>
<td>310,575 (82.5)</td>
</tr>
<tr>
<td></td>
<td>Rural area</td>
<td>Thousands of people (%)</td>
<td>2622.37 (38)</td>
<td>10235.84 (45.4)</td>
<td>65879.6 (17.5)</td>
</tr>
<tr>
<td>2</td>
<td>Area</td>
<td>Km²</td>
<td>8696.65</td>
<td>238,391</td>
<td>3,191,000</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Agricultural</td>
<td>Km² (%)</td>
<td>7023.56 (80)</td>
<td>147,600 (62.1)</td>
<td>-</td>
</tr>
<tr>
<td>3</td>
<td>Number of localities</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>No.</td>
<td>385</td>
<td>16,665</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>County seats</td>
<td>No.</td>
<td>2</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Towns</td>
<td>No.</td>
<td>5</td>
<td>526</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Large villages</td>
<td>No.</td>
<td>75</td>
<td>2,786</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Villages</td>
<td>No.</td>
<td>303</td>
<td>13,343</td>
<td>-</td>
</tr>
<tr>
<td>4</td>
<td>Density of localities</td>
<td>Villages/100 km²</td>
<td>3.5</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>5</td>
<td>Density of the population</td>
<td>Inhabitants/km²</td>
<td>80.5</td>
<td>94.1</td>
<td>118</td>
</tr>
<tr>
<td>6</td>
<td>Structure of population</td>
<td>%</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td>Age groups</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>0-14 years</td>
<td>%</td>
<td>18.5</td>
<td>18.3</td>
<td>17.4</td>
</tr>
<tr>
<td></td>
<td>15-64 years</td>
<td>%</td>
<td>64.5</td>
<td>68.4</td>
<td>67.0</td>
</tr>
<tr>
<td></td>
<td>&gt; 65 years</td>
<td>%</td>
<td>17</td>
<td>13.3</td>
<td>15.6</td>
</tr>
<tr>
<td>7</td>
<td>GDR/inhabitant (compared)</td>
<td>%</td>
<td>West Region 5</td>
<td>28.2</td>
<td>100</td>
</tr>
</tbody>
</table>
### Indices

<table>
<thead>
<tr>
<th>No.</th>
<th>Indices</th>
<th>M.U.</th>
<th>County of Timiș</th>
<th>Romania</th>
<th>European Union</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>Active population compared to the total population</td>
<td>%</td>
<td>51.2 (1994)</td>
<td>-</td>
<td>49.5 (1994)</td>
</tr>
<tr>
<td>9</td>
<td>Structure of occupied population</td>
<td>%</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Agriculture, forestry, fish farming</td>
<td>%</td>
<td>31.4</td>
<td>41.4</td>
<td>4.5</td>
</tr>
<tr>
<td></td>
<td>Industry, constructions</td>
<td>%</td>
<td>31.2</td>
<td>27.3</td>
<td>29.3</td>
</tr>
<tr>
<td></td>
<td>Services</td>
<td>%</td>
<td>37.4</td>
<td>31.3</td>
<td>66.2</td>
</tr>
<tr>
<td>10</td>
<td>Infant death rate per 1000 newly born</td>
<td>% (1998-2000)</td>
<td>19 (1996)</td>
<td>22.3 (1996)</td>
<td>-</td>
</tr>
<tr>
<td>11</td>
<td>Life expectancy upon birth</td>
<td>% (1998-2000)</td>
<td>70.4</td>
<td>70.5</td>
<td>69.1</td>
</tr>
<tr>
<td>12</td>
<td>Population literacy degree</td>
<td>% (1998-2000)</td>
<td>98.3</td>
<td>97</td>
<td>97</td>
</tr>
<tr>
<td>13</td>
<td>Life expectancy index</td>
<td>% (1998-2000)</td>
<td>0.757</td>
<td>0.758</td>
<td>0.734</td>
</tr>
<tr>
<td>14</td>
<td>Education index</td>
<td>% (1998-2000)</td>
<td>0.918</td>
<td>0.864</td>
<td>0.853</td>
</tr>
<tr>
<td>15</td>
<td>GDR per inhabitant (1998-2000)</td>
<td>U.S.$ (4580)</td>
<td>5441</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>Birth rate (2000)</td>
<td>%</td>
<td>9.2</td>
<td>10.2</td>
<td>-</td>
</tr>
<tr>
<td>17</td>
<td>Demographic dependence ratio</td>
<td>%</td>
<td>46</td>
<td>48</td>
<td>-</td>
</tr>
<tr>
<td>18</td>
<td>Road density</td>
<td>Km/100Km²</td>
<td>39 (1996)</td>
<td>30.7 (1996)</td>
<td>-</td>
</tr>
<tr>
<td>19</td>
<td>Electricity consumption of the population</td>
<td>Kwh/loc</td>
<td>525 (1994)</td>
<td>292 (1994)</td>
<td>-</td>
</tr>
<tr>
<td>20</td>
<td>Number of dwellings per 1000 inhabitants</td>
<td>Dwellings/1000 inhabitants</td>
<td>361 (1996)</td>
<td>345 (1996)</td>
<td>-</td>
</tr>
<tr>
<td>21</td>
<td>Inhabitable area</td>
<td>m²/inhabitant</td>
<td>38.4</td>
<td>34</td>
<td>-</td>
</tr>
<tr>
<td>22</td>
<td>Population per physician</td>
<td>Number of people per physician</td>
<td>335 (1996)</td>
<td>552 (1996)</td>
<td>-</td>
</tr>
<tr>
<td>23</td>
<td>Institutionalised children</td>
<td>Number of people</td>
<td>68</td>
<td>51</td>
<td>-</td>
</tr>
<tr>
<td>24</td>
<td>Number of telephones per 1000 inhabitants (1996)</td>
<td>Number/1000 inhabitants</td>
<td>13</td>
<td>120.9</td>
<td>-</td>
</tr>
<tr>
<td>25</td>
<td>Number of private cars per 1000 inhabitants (2000)</td>
<td>Number/1000 inhabitants</td>
<td>135</td>
<td>86</td>
<td>131.5</td>
</tr>
<tr>
<td>26</td>
<td>Index of human development</td>
<td></td>
<td>0.83</td>
<td>0.759</td>
<td>-</td>
</tr>
<tr>
<td>27</td>
<td>Degree of school attendance (1996)</td>
<td></td>
<td>80.6</td>
<td>72.2</td>
<td>-</td>
</tr>
</tbody>
</table>

Note: Data in this table concern the reference years in literature (e.g., PAUJ – Timiș 1998). Blanks mean we have no data.

### 3. Conclusions

The County of Timiș, part of the West development Region, is a County with resources and potential in rural development, with results in most fields of activity and in infrastructure.
From the point of view of rural population share, though it is below Romania’s average, it is two times higher than that in the European Union. This county has benefited the last 10 years from projects and programmes of development and rural management supported by the European Union and the Government of Romania, developed through government institutions or through non-government agencies, that contributed to the development of infra-structure in different fields of activity, unfortunately less in small and poor localities. It is necessary to make more efforts in this direction.

Though global indices presented in Table 2 do not have the same reference year, they allow us to make up the profile of rural development in the County of Timiș compared to the County of Timiș and the European Union, i.e. conclusions concerning the perspectives and opportunities for the enhancement of rural development process in agreement with European Union directives and with “Green Charter” of rural development of the URBANPROIECT Bucharest.

At county level, the most important element concerning the promotion and rural development directions are contained in the Management Plan of the County territory (PATJ). It contains present state and future perspectives for a long and medium-term sustainable development with a view to define options and strategic urban priorities closely linked to natural and man-made environment protection measures.

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This paper synthetically presents the community strategy for the development of the European Community and the implications over rural development. Thus, there are presented the objectives and the directions provided by the Common Agricultural Policy directly connected with the community strategy, EU requirements concerning rural development, sectorial policies and their application instruments for the rural area development.

Key words: rural development, strategy, requirements, policies.

1. INTRODUCTION AND GENERAL PROBLEMS

The attention paid to rural development is due to an indisputable fact [1]: 1.3 billion people, in the whole world, live in an absolute poverty, about 800 million persons suffer daily from hunger, among which 200 million children younger than 5 years. 70% of the poor people live in rural areas, most of them from agricultural activities and only a small part from non-agricultural activities. The respective areas represent weak points: low potential, fragile eco-systems, basic requirements – social services, water supply, safety food supply – scarcely accessed. Consequently, the fight against poverty goes beyond the humanitarian concern and it becomes the objective of strategies, structures and procedures of long lasting integration of the disadvantaged people in the political, economic and social systems capable to ensure progress [1]. That is why rural development is considered today as a global concept of integrating the factors determining the subsistence means, and of taking into account, besides the development of the agricultural sectors, the economic and social sectors of the rural areas.
2. EUROPEAN UNION REQUIREMENTS CONCERNING RURAL DEVELOPMENT. THE COMMUNITY STRATEGY AND THE COMMON AGRICULTURAL POLICY

The European concept of rural development takes into account 4 fundamental elements for a successful implementation: macro-economic stability, national own strategies for the reduction of poverty, greater capacities of the public and private sectors, and the involvement of the civil society organizations. The requirements of rural development on the European territory are part of the Amsterdam treaty, defined as six main directions of action [1]: the favouring of the future evolution of the more equitable, open and democratic rural companies; the creation of more effective and viable rural institutions; the support of the economic policies that favour rural development; the improvement of the living conditions of the inhabitants of the rural areas; the promotion of long term management strategies of the natural resources; the improvement of the coherence between the community development policy and the other EU connected policies – agriculture, commerce, fishing, the environment and immigration.

The community strategy, in accordance with its objectives of lasting social, economic and environmental development, aims at the reduction of poverty and proposes the following specific objectives for rural development [2]: the encouragement of the growth of rural economy by supporting some adequate economic and sectorial policies; the assurance of the fair access to the production means, markets and services, mainly the landed property policy, rural financing and rural infrastructures; the support of social development through investments in human resources in the following fields: health, education, food, water, hygiene; the guarantee of a long lasting management of the natural resources through institutional reforms and the development of adequate technologies; the reduction of vulnerability to risks through the promotion of risks management actions and the creation of security systems; the treatment of political and social exclusion in rural areas by ensuring effective, responsible, decentralized and participating institutions.

The Common Agricultural Policy (CAP), according to Luxemburg Agreement – 2003, and in compliance with the community Development Strategy, is based on the following principles [3]: a clearer orientation towards market requirements, simplified and less distorted support, the amplification of the measures of rural development policy and the change of
some instruments of commonwealth policy. Thus, CAP, which is compulsory for all the member states, pays greater attention to rural development policies, environment protection policies and to rural areas peculiarities, to the policies for agriculturers stimulation, and to quality productions.

3. SECTORIAL POLICIES CONCERNING RURAL DEVELOPMENT

*The economic policy* has to be favourable to rural evolution [1] with a view to improve the policy that enables internal and external investments, the policy referring to competition, the development of financial institutions directed towards small exploitations and rural population, the improvement of the effectiveness of the market of work force, production means and products.

*The policy of the agricultural sector* is focused on the improvement of public and private services for the support of production with the promotion of the latest technologies with reduced pollution effects and of eco-technologies, on supporting agricultural research work, agricultural investment in weakly developed areas, as well as on the improvement of the access to markets.

*The policy referring to human resources* is focused on the one side on the improvement of the rural population health, education and food supply, and on the other side, on the improvement of the professional performances through the promotion of training programs at all levels.

*The environmental policy* has to be focused on integration, implementation and information [4]. The environmental policy integration in the rural development policies shall be carried out at the community, national and local levels, with a view to diminish the pressure exerted over the environment. In order to ensure a better integration, more complete markets shall be created for environmental goods. The management of the resources shall be carried out by taking into account the resources long lasting utilization and the proper implementation of of the laws concerning wastes.

*The rural development policy* has to direct itself towards the creation of the frame, the required instruments and mechanisms for the support of rural areas development as a social, economic and cultural alternative to the urban area. The action axes shall be directed towards the creation and
development of efficient, responsible and decentralized institutions, towards the infrastructural equipping of the rural areas, and the development of information and communication systems, towards the development of non-agricultural activities generating profit.

The regional policy, as an instrument of economic and commercial cooperation, is highly effective both as concerns the economic growth and the international competitiveness in general, and over the rural areas. This policy will enable the regional harmonization of the agricultural and food security policies, the development of agricultural research initiatives and the creation of centres of excellence.

4. CONCLUSIONS

Rural development is a complex process which can be managed by applying some coherent rural policies that comprise objectives referring to poverty reducing, food supply safety and the long lasting management of natural resources. The rural development policies and programs are drawn up within national strategies and the main implementation instruments are decentralized planning and the community participatory development.

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RURAL DEVELOPMENT CONCEPTS IN THE WORLD
AND IN ROMANIA

CONCEPTE DE DEZVOLTARE RURALĂ PE PLAN
INTERNATIONAL ȘI ÎN ROMÂNIA

T. E. MAN*, CARMEN DORINA IOSIP*
DORINA RUȘET*

This paper synthetically presents the rural development concepts in the
world with special reference to Europe, namely to Romania, with a view
to European integration. Thus, there are presented the concepts of rural
development, lasting development, spatial development, sustainable
development and integrated development.

Key words: rural, lasting, spatial, sustainable, integrated
development.

1. INTRODUCTION AND GENERAL PROBLEMS

The more the changes of the world are subject to globalization, the
more the future of the European agricultural sector is directly connected to
the balanced development of the rural area which covers about 80% of the
European territory. Consequently, the concept of rural development, known
and promoted as “the European agricultural model” [1], centres around two
axes: on the one side the development of the agricultural sector according to
competitiveness requirements, and on the other side the development of the
rural area as a coherent and lasting frame that may answer the various
requirements of the rural world and the environment imperatives. That is
why the European policy of sustaining rural development pays attention
both to the measures of sustaining the agricultural markets and to the
measures that contribute to the strengthening of the territorial, economic and
social cohesion. The principles of this policy are as follows [2]: the
recognition of the multifunctional role of agriculture, the growth of

* Polytechnic University of Timișoara
2. RURAL DEVELOPMENT CONCEPTS FOR EUROPE

The rural development concepts met with in the literature are as follows:

The long lasting rural development [3] – as it was proposed by the United Nations in Brundtland report, in 1987, „long lasting development is a development which satisfies the requirements of the present time without compromising the capacity of the future generations to satisfy their requirements” – it is a global concept which includes: a long term temporal dimension which implies the solidarity between generations; a spatial dimension with reference to the whole planet; multiple objectives of economic, social, cultural, ecological, political and ethical order. In fact, long lasting rural development is based on three levels: an economic dimension, a socio-territorial dimension, and an ecological dimension.

The sustainable rural development [4, 5] – underlines the innovative and competitiveness elements for the support of some economically viable farms by maintaining the diversity of the agricultural structures as the strong point of the European rural areas and by identifying new sources of unconventional energies. The ever higher economic performances shall have to be obtained in accordance with the sustainable use of the natural resources.

The integrated rural development, also introduced as a concept within FAO, in 1971, in Rome, refers to “the whole assembly of governmental and non-governmental measures that aim at spreading the modern techniques among rural populations” to be used by those interested in them [6].

The spatial rural development – emphasizes the need for a global thinking for a sistematic and balanced spatial planning with a view to improve the spatial structure of the economy and infrastructure [7].

At the level of the European Community, the urban and rural development policies are looked upon as “interconnected aspects of a comprehensive spatial policy” [7], which can be defined through the light of
three proposed ways of intervention: the territorial planning, the regional policy and the spatial integration of the sectorial and functional policies relevant from the spatial point of view. These elements are clearly presented in “The Space Development in the European Community (SDEC)” [8], approved following an ample process of debate, in Postdam, in 1999, within the informal Council of the ministers responsible with the territorial planning. Being an intergovernmental document of indicative nature and not of coercive nature, SDEC proposes to the main actors involved in the spatial development at European, national, regional and local levels a number of political objectives and options such as: the implementation of a polycentric and balanced urban system to encourage the development of a relatively discentralized urban structure at the same time with the promotion of a new partnership relation between the town and the village, for the avoidance of the excessive concentration of the population and of the economic, political and financial power in a single dynamical zone of Europe; the promotion of the integrated transport and communication systems that favour an equivalent access to the infrastructures and knowledge over the whole European territory; nature and cultural patrimony development and preservation, elements which represent a factor not to be neglected at all, as far as regional development is concerned.

On the other side, the Common Agricultural Policy (CAP) of the European Union aims at the development of the rural area on several axes: the strengthening of the agricultural and forestry sectors by applying investment measures in agricultural exploitations, the diversification of the agricultural activities, the turning into account the human resources (the settling of young farmers, the promotion of anticipated retirement and professional training); the intervention in the disfavoured areas and in areas with environmental restraints by allotting compensatory subsidies; the improvement of the rural areas competitiveness by strengthening local economy: the development of rural infrastructure, the creation of alternative income through the development of non-agricultural activities such as tourism, workmanship, villages “restoration” by taking into account the environment protection; the environment protection and the protection of the rural patrimony by adapting the production methods to the environment protection and to biodiversity.
3. RURAL DEVELOPMENT PRIORITIES IN ROMANIA

Rural development in Romania, with a view to European integration, has to be directed in agreement with the European policy in the field, by focusing on the promotion of local potential and on the competitive advantage, and the development of the economic performances of the “involved actors”. The first priority of the short term agricultural policy may be “the focusing of the economic policy, mainly the agricultural policy by creating and consolidating the fundamental determinants of competitiveness” [9]. This implies the adoption of some measures for the improvement of the competitive environment, of the economic potential, and of the economic agents behaviour on two directions, as far as the actions to be taken are concerned: to lay the emphasis on the structural policies rather than on the interventionist ones for the competitive markets forming and development on the one side, and to replace the exclusive agricultural policy with a real rural development policy that may lead to the development of the rural area as a viable socio-cultural-economic alternative of the urban area. The strategic objectives, for the period of pre-accession to the European Community, proposed by several authors [10, 11, 12] are as follows: the reduction of the population segment that works in agriculture and the ensurance of alternatives, as far as jobs and income sources are concerned; the creation of viable economic exploitations through the reduction of the degree of the landed property breaking up; the development of the rural areas infrastructure and services: communication networks, health services, education, consultancy; the increase of the management capacity for the attraction of the financial resources meant to turn to account local resources; the integration of the environmental component in all the rural development policies [13,14].

4. CONCLUSIONS

The European concept proposed for rural development, "the European agricultural model", comes to be looked upon as an essential element in fighting against poverty, starting from the following [15]: three quarters of the persons that suffer from extreme poverty live in rural zones; hunger and poverty mainly affect rural zones; rural development plays an important part in the economic growth and in the lasting management of the
environment. The concept operates with macroeconomic policies—commerce and markets deregulation, privatization, and the award of budget resources—and sectorial policies in agriculture, forestry, and fishing which aim at the environment integration in the agricultural policy, greater access to markets, the support of the groups of producers, and the stimulation of research, as far as agricultural development is concerned.

**BIBLIOGRAPHY**


STUDY OF THE HUNGARIAN FARMERS’ PREPAREDNESS FOR THE REQUIREMENTS OF THE EUROPEAN UNION

In our survey we tried to get an answer to the question what the opinion of the Hungarian agricultural producers is, if they consider themselves adequately prepared to meet the demands of the European Union. The survey was accomplished among the agricultural producers (n=300) in Hódmezővásárhely and on the surrounding settlements.

We found that those farmers who planned to develop and expand their enterprise, regardless of the type of the enterprise, had knowledge about financial resources, application-systems and application possibilities at approximately the same rate. In case they wanted to apply for support they would write the application themselves.

Keywords: European Union, Hungary, information, accession, preparedness

INTRODUCTION

The future situation of Hungarian agriculture is basically determined by the accession to the European Union. Hungary became a part of an integration that has been operating successfully for decades and where the income conditions deriving from the connection between agriculture and food industry can be regarded as stable. All these are perfect and would show an ideal perspective for an adequately prepared society. However, opinions are divided on the issue how much Hungary has done for that purpose.

During the preparation period the central element of support was the SAPARD programme, which aimed to prepare the agricultural regions of the accessing countries for EU accession (Bárdos – Hájos, 2002).
The other form of obtaining financial resources is to apply for agricultural subsidies. The system of agricultural subsidies within EU consist of two groups basically. These are the national (governmental) supports and supports financed by the common budget.

Within the frame of CAP (Common Agricultural Policy) the largest sums of money are spent on interventional arrangements, export subsidies and direct payments, on the account of market support.

The respectively smaller ratio of resources are made up of provisions for rural development to promote, within that, the investements, the processing and selling of agricultural products, to help new farmers in their career, to encourage establishing new producer organisations and to work out a new (early) retiring system as well as to advance the development of rural infrastructure. (Nagy – Szentirmay, 2002).

One of the greatest informational programme of the Ministry of Agriculture and Rural Development was called „The preparation of producers for the access to the European Union“. The main objective of the national programme was to provide information for farmers about EU regulations concerning them, personally, on the premises. The programme comprised training advisors, organizing events, publishing practical handbooks for the lectures, contact with media and the maintenance of the programme (Vajda, 2003).

All this happened with the intention that communication should lay special emphasis on the persons who are directly affected by the changes. (Gál, 2001).

In our survey we tried to get an answer to the question what the opinion of the Hungarian agricultural producers is, if they consider themselves adequately prepared to meet the demands of the European Union.
MATERIALS AND METHOD

The survey was accomplished among the agricultural producers (n=300) in Hódmezővásárhely and on the surrounding settlements.

The content of the questionnaire was made up of three main parts: in the first part it contained questions about the personal particulars of the questioned, in the second part farmers/producers were asked about their EU knowledge and the form of their obtaining information, and the third part interviewed them about potential possibilities and also about the current agricultural policy and the agro-informational system. (We cannot present the completed questionnaire because of its size, but the authors will send it to you in Hungarian language, if you wish.)

DISCUSSION

Most of the questioned were middle-aged farmers/producers from Csongrád County. A little more than half of the respondents had some qualification related to agriculture.

As for the special field of their activity, plant production was dominant followed, in much smaller ratio, by animal husbandry and horticulture or the combination of the two latter ones.

The most significant information sources were the radio, the television and the professional journals. Farmers can get informed most easily through these sources. Many of them, mostly the elderly, have problems with operating a computer, this is why Internet information has no decisive role for them.

The majority of the respondents was not content with the preparation work and they had questions about the following issues:

- market possibilities – market regulation,
- supports – possibilities for application,
- production technologies.

In the forthcoming period most of the agricultural producers will try to maintain their own enterprise on the current level, most of them reckons with decreasing possibilities, and the number of those thinking that possibilities will improve is only minimal.
We found that those farmers who planned to develop and expand their enterprise, regardless of the type of the enterprise, had knowledge about financial resources, application-systems and application possibilities at approximately the same rate. In case they wanted to apply for support they would write the application themselves.

Farmers (croppers) had only very little information about the fields listed in the previous paragraph, and yet most of them would apply for supports and would entrust an expert to write the application. Their shortcomings are shown by the fact that they do not know the Operative Programme for Agricultural and Rural Development, therefore they are not in possession of the suitable and current information.

The examination of the clearness of the administration systems also supports the above mentioned facts since the majority found that the administration system of the applications is too complicated. Conversely, they found the registration system of producers satisfactory.

**BIBLIOGRAPHY**

The introduction of the village superintendent-system was started in 1990. After the model experiment stage of the programme had been closed the regulation of the service got into the Social Act and into the related professional measures. The model experiment of the homestead-superintendent-system got into the village-superintendent network development programme in 1998. The settlements with separate farms on their outskirts had to face similar difficulties as the small villages. Therefore it seems obvious to establish a special model related to the village-superintendent service to combat the mentioned disadvantages.

**Key words:** rural development, village superintendent, homestead caretaker, social care system

**INTRODUCTION**

One can hear much about rural development nowadays although it is quite controversial and not cleared enough what it really means. The study gives the reader a taste of what rural development is. Actually, what is rural development? The answer can be worded, as rural development is every development serving the improvement of the life-quality of people living in rural areas. The life-quality improvement might include a good many activities that are often specific and special in accordance with the conditions of the given territory. I would like to demonstrate such a special rural development project as follows.

**PRECEDEOD ET THE PROJECT**

The introduction of the village superintendent-system was started by the proposal of the Village Development Association in the summer of
This service was inaugurated primarily in small villages of the Trans-Danubian Region of Hungary. The establishment and development of the system was started in 1991 as a programme within the framework of model experiments designed, according to the characteristics of the settlement-structure of Hungary, for the purpose of decreasing the social-care inequities derived from the historic economical and social differences between the settlements.

The concrete objective of the programme was to provide, through central support, the personal and material requirements for the establishment of the village-superintendent-system to help people living in small villages receive the basic social, health and educational etc. provision and services. After the model experiment stage of the programme had been closed the regulation of the service got into the Social Act and into the related professional measures. The guarantee-element of the operation was provided by the Budget Act through a special denominated normative contribution.

The model experiment of the homestead-superintendent-system got into the village-superintendent network development programme in 1998. When fulfilling their basic social-care duties, the settlements with separate farms on their outskirts had to face similar difficulties as the small villages. The situation of people living separately in the outskirts is, in many cases, worse than that of the people living in settlements with a population under 500. They are a long way away from the various institutions providing basic care and services for them; the inefficient transport and the poor road conditions make it very difficult for them to reach the central areas; the population in most cases is senescent, etc. Therefore it seems obvious to establish a special model related to the village-superintendent service to combat the above mentioned disadvantages.

The basic duties can be fulfilled within the homestead-superintendent service from the January of 2003.

**The definition for village-superintendent**

A person, a service provider with a car who has regular contact with a total of maximum 400 inhabitants living in the outskirts, who does an average of 80 km/s a day and who also acts as a co-ordinator between the inhabitants and the local authority, institutions and organisations in charge there.
The definition for homestead-superintendent

A village-superintendent fulfilling his duties in the homestead-regions of Hungary. The difference between a village-superintendent and a homestead-superintendent is that the latter has tasks in the outskirts as well as in the central areas, which is resulted of the territorial characteristics of the homestead-regions.

SETTLEMENT-GEOGRAPHICAL CHARACTERISTICS

While the dwellings in the majority of the small villages can be found almost in one block and have relatively adequate, easily accessible concrete roads, the outskirts dwellings – homesteads are situated separately, scattered on a large territory a long way away from each other (there are approximately 9086 homesteads in the Homokhát region, 50% of which are permanently inhabited). Accessibility is highly influenced by the weather and road conditions while the efficient social and mental hygienic care of the population is detained by the low density and the great number of lonely and poor inhabitants. Difficulties are further heightened by the ever increasing number of the so called „social migrators” who leave the town conditions for the world of homesteads. The number of school-children in these families is quite high and providing facilities so that they will be able to attend a nursery or a school also means difficulties.

The problems of the village- and homestead-superintendent system

The main problem is that the tasks and activities defined by the system- determinative law cannot always be adapted to the settlement geographic characteristics of the micro-region (bad infrastructure, long distances etc.)

THE PROJECT

Finding solution for the problems summed up above and advancing the employment of the people living in the micro region generated the idea of the project given in the title. Within the frame of the project all the homestead-superintendent districts were divided into sub-districts.
The definition for homestead-superintendent
A permanent outskirts-inhabitant selected by the trust of the local community and also by his volunteering, whose dwellings can be approached by car without great difficulties in every season. Furthermore he is capable, both mentally and physically, of co-operating with the organisations in charge to provide the necessary service and provision for the population of his district.

The main objective of the project:
- To spread the social care system among the homesteads in the district as well as
- To provide employment, re-integration and rehabilitation for the permanently unemployed.

There are 13 settlements of Homokhát taking part in the implementation of the project, within the frame of which they employ 50 homestead caretakers.

According to the objective of the project the training and the motivation of the target groups appear as an important element, which advances the possibility of these people returning to labour market and besides, it enhances the efficient operation of the homestead superintendent – homestead caretaker system.

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In my research I attempt to study the more outstanding features of the environmental market. In the scientific literature it is me who firstly applies this terminology to the Central and Eastern European countries. First, we had to ask the question whether we can talk about a formed environmental market in this region at all? What does environmental market mean? It is the leading idea of my research according to which I study the regions and the countries. Let’s see some agricultural aspects too.

Key words: environmental protection, environmental market, environmental protection in agriculture

The social-economical processes accelerated in the last one and a half decade in the Central and Eastern European countries. The process brought numerous contradictions, difficulties. New problems to the surface and their solution need multi-dimensional way of thinking. We could ascertain that the change could not be realized in a day or two. The issue of the environmental protection appeared in this category as a significant field. During the changes the short-term local interests often prevailed, and the regional and even global problems were articulated on the level of theory only. It is worth mentioning if the short-term interest of the economy and the long-term interests of the environment can be stimulated. It is absolutely true for agriculture. The length of growing or breeding season is well defined and takes time. The impact of process comes sometimes years later.

It is worth studying as it comes up from both the scientific and everyday experience that whether the spread of mass production can be responsible for the deterioration of the environmental quality and of the

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living conditions? Provided we accept this responsibility we have to work a new production conception out and also we have to reckon with its social consequences. In the fight for distribution the capital and the work have to give up a part of their claims in the interest of legality of nature. (Eppelsheim, C. 1998)

We are apt to find the reasons of the environmental problems in the environmental pollution only though it is only the end of a process and that is why it is worth tracking its starting-points down. At this time in our research we face the ambiguity that standee between our claims, expectations and our consumer customs, consumption. How many people, agricultural workers declare himself an environmental friendly consumer and actually how many of them act in accordance with it? It is the outcome of a production and sale mechanism that endangers the balance of our environment and so the human life in it. In the last decades Central and Eastern Europe preferred the quantitative side of the production, used different chemicals, and they paid less attention to the material- and energy efficient solutions. These products and services were undervalued in the free market race because the markets are not inclined to admit with 30-40 percent more use of energy and materials than the justified. The huge proportion of waste materials is almost automatically connected to it. (Bodnar K. 1996.)

As a result of scientific researches the interpretation of environmental protection and – economy seems to be a special scene for the success of social-economical laws. The efforts for the classification into traditional theoretical systems have appeared even in this field but they are not supported convincingly. The professional field was pushed into the background under the pressure of the seemingly unambiguous clash of interests between the environmental protection and economic development. Later, after that the positive externalities had been recognized the case of environmental protection and – economy, environmental market was more and more pushed toward the „win-win” solutions. Typical example is using upper part of a river for industrial use and down for agricultural and leisure time. It is sometimes in different countries. Its integration into the international economic processes can be regarded as a tendency since the different standard systems of the countries or even simply the lack of these systems can influence its operation. In the market of the developed countries technologies exploiting the environment on both sides of input and output
are at a disadvantage comparing to the environmental products, technologies, services as the demand toward them is becoming more and more motivated. Scientific literature emphasizes the positive effect of the environmental market on the labour market.

Environmental protection, and so the environmental market as an independent segment of the market, does not recognize state borders in certain context and that is why it is justified to examine it on the level of regions. I have to ask the question again whether we can talk about a settled environmental market in the less developed countries at all and what are the features that distinguish it from other social-economical processes? What are the expectations? What steps should be taken? And how long is the reaction time? It is difficult to know exactly the flows under the grand, which chemicals has long degradation period in different situation. It is impossible to measure everything immediately. This situation causes a little more freedom for black market of dangerous goods.

It is often mentioned that the protection against the effects damaging the environment is not in the interest of the private capital. This way it is only the state that remains to solve the tasks of the environmental protection. But the expenses of the environmental protection cannot enter into competition with other significant expenditures such as the military preparations, the social field, the education, the public administration and the health care.

Beyond the ecological security the future, which is very important in agriculture, is in the hand of integrative connections. Even in the period of economical recession development motivated by the environmental protection can have positive effects in the way that it can solve the problems in other social fields, too?

The case of the environment should be emphasized in view of the newly joint countries because it is a well-known fact that these countries are in the first or second decades of the economical and political change. The other Eastern European countries are even more seriously behind the European standards. It is sure that there the most important tasks will remain untouched in the long run.

During my research I had to face the uncertainty in the examined countries. Observing the processes still going on I had to ask the question if it is possible at all to talk about an environmental market according the definition that was formed on the basis of the political-social-economical
movements of the developed world. Does its content cover all the issues we are curious about? Do the index numbers, the results entitle us to set up trends, developmental processes?

The opinion is changing in the regard that the conflicts between the short-term interests of economy and the long-term interests of environment can be stimulated.

The development of the environmental market was modified by:
- The geopolitical position of the country
- The intensity of the social-economical changes
- The responsiveness of the government toward the environmental protection
- Their commitment
- Their role.

The starting thesis in the macro economical assessment of the environmental market is that this sphere of national and international market contains externalities. But, at the same time, it does not aim to satisfy, ease or stop the demand of the main economical processes. In the contrary, it intends to correct their consequences. This problem has so many elements that we can easily meet the erroneous view suggesting us that the international economy has found the solutions of all its problems in the environment protection. The reality is that the environmental market can only either strengthen or weaken the effects of the power (economical, social, political etc.) that moves the market but it cannot replace them even in a long run. It generally true, but especially interesting for agriculture.

It can be established with full knowledge of the analysis of data about the regional and national scale of the environmental market and of the environmental policies that the following facts motivate its enlargement and its intensity:
- The basis of the forming environmental market is the legal regulation that handles and consistently asserts the united requirements and guarantees both on national and regional level.
- It can be claimed on the basis of the international experience that even the bank sphere contribute to the enlargement of the sector as the more and more significant investor (with the opening of the retro distributive channels and the finance of reference projects).
First of all, different international contrasts increase the production-market intensity of the environmental goods.

The environmental awareness (on both consumers’ and companies’ side) is the biggest potential power the dynamism of the environmental market.

The elaboration of the solution is not simple and neither can it be standardized but it is worth taking some suggestions into consideration that makes the shading with the local parameters possible. Some of them are the followings:

- The organizations that carry out environmental protection services are small and middle companies for the most part, and for this reason the cooperation in the environmental protection activities of the industry bears special significance.
- In numerous areas the industrial and agricultural production pollutes the soil in the forms of illegal litter unloading areas and other polluted areas. Their liquidation means significant rehabilitation burdens that should be started urgently.
- The biggest problem in the realization of environmental protection is the lack of the appropriate financial background. It is highly wished to make use of the capital, the government supports, and the preferential developmental and rehabilitation sources. The possibilities of the technological transfer and the multinational forms given by the developed countries should be used more widely.
- In the future those technological developments that result in the reduction of the amount of waste (Boros Tne, 1998) materials and other solutions to recycle them should be given an outstanding importance. It is expected that the processes in material- and energy rationalization will be getting stronger.
- It is necessary to transform the research-developmental sources and the institutions of the research and development activity.
- The cooperation between the Ministry of Environmental Protection and other ministries should be improved in the interest of the more efficient regulations regarding the industry and the agriculture.
• It is important to harmonize the materials of gradual and post
  gradual education and then to tie it to a special field or
  profession in the field of education of environmental
  protection to increase its practical efficiency.
• The monitoring system of the firms using technologies with
  high environmental risk should be elaborated and then, if
  required, the social control should be provided, too.
• The professional, methodological and evaluative unambiguity
  and compatibility of the environmental checking, and in
  effect examination should be taken into consideration. The
  role of the authorities of the environmental protection is
  increasing, and the professional independence and
  competence of the supervisors should be checked.
• The efficiency and the social acceptance can be increased
  with the help of experts and professional organizations during
  the preparation phase of the rules.
• In the interest of making harmony among the legislation, the
  execution and the concerned ones the economical conditions,
  trade policies should be better built-in into the preparatory
  stages.
• The legislative branch should take the reality of the national
  economy, the law system of the environmental protection in
  the EU and the main effect lines of the region into
  consideration. The rational, realizable decisions can be
  executed the most efficiently.
• The ideas, methods, norms and suggestions of the EU direct
  our future – mainly because of our planned join to it.

The pollution has been constantly increasing since the developed
countries started a fast industrial development. Just think of the abnormal
microorganisms in sewage which set up a New and significant problem.
(Horvath J, 2003.) The situation is different between the advanced countries
where they have to fight against the acute pollutants and the developing
countries where they intend to transform the results of the developed
countries.

The Central and Eastern European countries are not exceptions as
the direct concern causes a great effect even here. Unfortunately, only the
process bearing the stamp of tragedies or significant damages can change
the consumers’ attitude. It is often realized in the form that the consumer has to pay more for living in the circumstances that does not load this environment. According to my fourth hypothesis consumers are inclined to pay more for environment-friendly products only in small degree. In the examined countries a big amount of consumers is not inclined to pay more for the environment-friendly products referring to economical and social reasons. Often the lack of knowledge and of the gathering and managing systems are in its background. The environmental protection means more expense for both the costumer and the producer and from this it follows that its effect depends on how much it can influence the profit.

Generally the environmental fees are too low to stimulate the environmental protection therefore the role of the government is crucial. It becomes the catalyst of the protection. Without the environmental market the financial support of the environmental protection is not utilized efficiently, that is why it is an urgent demand to form it consciously in the less developed countries. (N.Sz. 2003)

The less developed countries – so Eastern Europe – are under the pressure of the running into debt, the unemployment and serious environmental heritage. In certain cases this situation hinders the cooperation with the more developed countries. The solution cannot be kept delaying further therefore the international organizations have started a professional and financial support to hinder the irreversible damages in the endangered ecosystems and to rehabilitate the existing problems. They have elaborated international projects applying a new financial system against debts and pollution of the environment.

In my research I endeavored to show that while before the natural effects of the economical development were in the centre of attention, now the bad state of environment restricts the strategies to develop the economy. The eco-pessimism and techno-optimism are opposing principles but there are numerous views trying to find the best way between them. Nowadays in the process of the internationalization of the environmental protection the more rational professional-political tendencies changed the early romantic ideas in Eastern Europe.
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USE OF BIOGAS IN ENERGETICS IN THE CASE OF RENEWABLE ENERGY PROJECT

1. INTRODUCTION

Both international and national endeavours focus on the utilisation of renewing energy sources and the increase of their ratio within electricity production. It is for environmental reasons, mainly for the purpose of decreasing CO₂ and SO₂ emission, nuclear materials, dust and ash pollution in air that the issue of alternative energy sources including wind, water, biomass, sun and geo-term-energy, got into limelight. Development programmes for the promotion of renewing energy sources are based, among others, on the following: to facilitate the rational utilisation of national natural resources, to improve health-care condition, to stabilise CO₂ emission, to control the emission of CO₂, and other gases contributing to greenhouse effect, and to take complementary measures necessary because...
of the increasing CO2 emission due to the growth of economy. To exploit the existing renewing energy sources we must select the most suitable fields of application as well as the best technical solutions tailored to the requirements of utilisation. Certainly, we must be aware of the local facilities to estimate the possibilities and to make decision for realisation.

The organic materials of the waste are mainly cellulose, hemicellulose, cellulose-derivatives, simple and compound sugar. In vegetable matters the ratio of proteins, peptides, fats and oils is smaller than in zooolite materials. Consequently the three main groups of compounds, considering biogas production, are carbo-hydrates, proteins and fats.

The process of biogas development can be divided into two phases:

- The first one is a bio-chemical process (acid fermentation), which means the decomposition of the large molecules of organic materials.
- In the second phase the further bacteria-groups decompose the simple molecules. So these bacteria decompose the organic materials into soluble fatty acids, alcohols, carbo-hydrates and hydrogen-sulphides.

The end product of the process is a biogas consisting of methane and carbo-dioxide suitable for energetic purposes. It is important from biogas production point of view that the solution in the fermentor should be constant, this is the pledge for the microbiological activities. The biogas can be used for energetic purposes, and in large scale it can be sold as electric energy. The heat coming from the engine and the generator can be collected in heat exchangers and it can be used for preparing hot water and for heating. One third of the gained energy is electric, two thirds are heat. In our work we examine the technical facilities of biogas production in the economic environment of a given region. The region can be considered as typical: it has animal farms, a poultry-processing plant with the characteristic problems of environment load and by-product handling. The aim of the local owner and the economic management is to increase the rate of cost-effectiveness in general.

2. BACKGROUND AND METHODOLOGY

2.1. The technology of the designed biogas plant

The biogas plant was based on the slurry of the local pigfarm. The animal stock’s composition: 650 sows, 3000 swines, 2800 piglets, 11 boars

The daily amount of slurry is 30-50 m³, yearly 18000 m³, and almost 20 m³ /day coferments.
2.2. Methodology

Our report is dealing with the planning of a biogas plant which is suitable for a typical pigfarm and in a certain general economical situation. We analyse the profitability of this investment. The payback is true if all the possible incomes will be get into our budget. For instance subsidy of state for desposal of coferments, marketable heat, income from the fermented biofertilisers.

3. ACHIEVEMENT

From the prestoring containers the components (pig slurry, agricultural by-products, wastewater of the slaughterhouse – it is used for to set the dry content of the substrate) are transported to the mixing tanks (sumps). Here is the homogenization of the premixed biomass and the comminution for processing size. From the sinks the special, cutting face equipped pumps with rotors carried the mixed substrate into the digesters.

The digesters and the post digesters are the anaerob part of the whole process. Those are heat isolated, ferroconcrete tanks, heated, mixed especially to spare the energy where mesophilic (decomposition temperature $38^\circ$C) and thermophilic (decomposition temperature $55^\circ$C) bacterias
releasing biogas from the biomass. The stable, permanent temperature (it is necessary for the process) is provided by the digester’s bottom and side heaters. The stirrer is used periodically for the homogenization and prevent the formation of a locking layer on the top of the substrate. We designed two mesophillic digesters and two thermophillic digesters based on the datas. During the fermentation process the digested materials are situated on the lower part of the digester. After 30 days digesting (mesophillic temperature) the almost decompositiond substrate is pumped into the postdigesters (thermophilic – 27 days digesting). Practically the postfermentor is used for temporary storing of the fermented biomanure before the transportation of the bioslurry to the biomanure storing sink.

These sinks made of fermentor construction (covered, heatable) so it can make longer the an-aerob phase – it used for to release the total amount of gas and for the outgoing material’s total hygienised stage. The Ph value of the process running in the digesters is controlled by sensors and if it is necessary during unfavourable conditions – acidization – it is possible handy dosage of the chemicals. There are sensors to measure the methane content of the biogas in the digesters and the system can regulate the way of this. By the increasing of the methane content the biogas is routed through the gasmeters to the dehydration section, where cooling the gas happened the dehydration. The route of the gas depends on the power of the cogeneration powerstation and it is transported to utilisation or storing in the biogas flexible tank till the utilisation.

The released biogas drives such an internal combustion engine what is driving a generator. The waste heat of the engine (exhaust fumes, oil, cooling water) is collected in heat exchanger and used to prepare the consume warm water and heating.

<table>
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<tr>
<th>Gasproduction</th>
<th>yearly</th>
</tr>
</thead>
<tbody>
<tr>
<td>Animal stock</td>
<td>animal unit (au) 668</td>
</tr>
<tr>
<td>Daily gasproduction</td>
<td>m³/au.x day 0.88 203,803 m³</td>
</tr>
<tr>
<td>Waste of abattoir</td>
<td>kg/day 20,000 7300 t</td>
</tr>
<tr>
<td>Gasproduction of coferments:</td>
<td>m³/kg x day 0,525 3.640875 m³</td>
</tr>
<tr>
<td>Calculated running duration yearly</td>
<td>% 95 347 nap</td>
</tr>
<tr>
<td>Gasproduction</td>
<td>m³/day 11.088 3844678 m³</td>
</tr>
<tr>
<td>Heating value</td>
<td>kWh / m³ 7.0 26.912746 m³</td>
</tr>
<tr>
<td>Gasrelease</td>
<td>from manure 5% from coferments 95%</td>
</tr>
</tbody>
</table>
### Database to design the biogas plant

<table>
<thead>
<tr>
<th>Gas production from herd</th>
<th>pieces (heads)</th>
<th>Mass (kg/head)</th>
<th>Technology</th>
<th>Animal unit</th>
<th>Gas production (m³/Animal unit *day)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of sows + boars</td>
<td>661</td>
<td>250</td>
<td>75</td>
<td>247.9</td>
<td>0.88</td>
</tr>
<tr>
<td>swine</td>
<td>3000</td>
<td>70</td>
<td>100</td>
<td>420</td>
<td>0.88</td>
</tr>
<tr>
<td>Together...</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>667.9</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>588 m³/day</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Gas production of coferments</th>
<th>Quantity kg/day</th>
<th>t/year</th>
<th>Gas production m³/kg*day</th>
<th>Subvention of state for the disposal (Ft)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coferments</td>
<td>20,000</td>
<td>7,300</td>
<td>0.525</td>
<td>15,000</td>
</tr>
</tbody>
</table>

| Retention Time | day | 57 |
| Fermentor volume | m³ | 6280 |

| Process electrical energy demand | % | 5 |
| Process heat energy demand       | % | 20 |
| Maintenance of buildings         | % | 1 |
| Maintenance of equipments        | % | 3 |
| Maintenance of engine generator set | % | 0.9 |

### Datas of engine generator

| Electrical power | kW | 910 |
| Gas consumption  | m³/hour | 464.3 |
| Total efficiency | % | 84 |
| Calculated running duration (yearly) | % | 95 |
| Calculated running duration (daily)  | hour | 23.9 |
| gas consumption  | m³/day | 11.088 |
| Brutto electrical energy | kWh/day | 21.732 |
| Brutto heat energy | kWh/day | 7.535569 |
| Electrical energy for utility | kWh/day | 43.464 |
| Marketable heat energy | kWh/day | 15.071128 |

### Plan of biogas plant’s investment

<table>
<thead>
<tr>
<th>Quantity</th>
<th>Price [Ft]</th>
<th>Main parts</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0</td>
<td>4,225,000</td>
<td>Gasholder 1100m³</td>
</tr>
<tr>
<td>1.0</td>
<td>5,158,400</td>
<td>Gasanalyzer CH₄-H₂S-CO₂</td>
</tr>
<tr>
<td>1.0</td>
<td>11,804,000</td>
<td>Gas-Cooler container</td>
</tr>
<tr>
<td>1.0</td>
<td>9,016,020</td>
<td>Condenser with 100m gaspipe</td>
</tr>
<tr>
<td>1.0</td>
<td>1,300,000</td>
<td>Sulphur decontamination</td>
</tr>
<tr>
<td>1.0</td>
<td>59,800,000</td>
<td>Heating system with engine-room</td>
</tr>
<tr>
<td>1.0</td>
<td>8,567,000</td>
<td>Computer control system</td>
</tr>
<tr>
<td>1.0</td>
<td>17,475,640</td>
<td>Electrical sensors and fittings with installation</td>
</tr>
<tr>
<td>2.0</td>
<td>184,600,000</td>
<td>Blockheater BHKW626 kW el power</td>
</tr>
<tr>
<td>1.0</td>
<td>16,900,000</td>
<td>Blockheater BHKW626 installation</td>
</tr>
<tr>
<td>2.0</td>
<td>95,927,000</td>
<td>Mezophil fermentor concret tank and machinery</td>
</tr>
<tr>
<td>2.0</td>
<td>79,250,340</td>
<td>Termophil fermentor concret tank and machinery</td>
</tr>
<tr>
<td>1.0</td>
<td>20,107,880</td>
<td>Mixer sink, concret, and machinery</td>
</tr>
</tbody>
</table>

101
<table>
<thead>
<tr>
<th>Quantity</th>
<th>Price [Ft]</th>
<th>Main parts</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0</td>
<td>14,001,000</td>
<td>Gas holder building 1100 m³ concrete and machinery</td>
</tr>
<tr>
<td>2.0</td>
<td>46,716,000</td>
<td>Post storage tank and machinery</td>
</tr>
<tr>
<td>1.0</td>
<td>22,418,500</td>
<td>Sterilizer</td>
</tr>
<tr>
<td>1.0</td>
<td>15,301,000</td>
<td>Coferments agitating</td>
</tr>
<tr>
<td>Összesen</td>
<td>612,568,580</td>
<td>Summ investment</td>
</tr>
</tbody>
</table>

2. Figure Layout of biogas plant

- mixer sink – 200 m³;
- mezophilic fermentor – 2*1570 m³;
- thermophilic fermentor; 2*1570 m³;
- post storage sink – 2*2650 m³;
- gastank – 1100 m³;
Calculation of costs

<table>
<thead>
<tr>
<th>Description</th>
<th>Investments</th>
<th>Amortization Pro year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fermentor and accessories</td>
<td>310.23200 Ft</td>
<td>10.914020 Ft</td>
</tr>
<tr>
<td>Cogenerator, block heater plant</td>
<td>184.60000 Ft</td>
<td>11.098360 Ft</td>
</tr>
<tr>
<td>Buildings and machinery</td>
<td>117.736580 Ft</td>
<td>4.142060 Ft</td>
</tr>
<tr>
<td>Maintainance and repairing</td>
<td></td>
<td>23.071620 Ft</td>
</tr>
<tr>
<td>Insurance</td>
<td></td>
<td>0.5</td>
</tr>
<tr>
<td>Workday (8 employees)</td>
<td></td>
<td>3.062800 Ft</td>
</tr>
<tr>
<td>Salary pro hour</td>
<td>14.560 Ft</td>
<td>40.389440 Ft</td>
</tr>
<tr>
<td>Summ costs</td>
<td></td>
<td>92.678300 Ft</td>
</tr>
</tbody>
</table>

Biogas plant return’s data

<table>
<thead>
<tr>
<th>Incomes</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electrical energy for utility</td>
<td>7,158,790 kWh</td>
</tr>
<tr>
<td>By 56/2002.X.29.-th low compulsory buying price in peak hours</td>
<td>25.5 Ft/kWh</td>
</tr>
<tr>
<td>By 56/2002.X.29.-th low compulsory buying price in off-hours</td>
<td>15.8 Ft/kWh</td>
</tr>
<tr>
<td>Number of peak hours</td>
<td>2610 h/year</td>
</tr>
<tr>
<td>Number of off-hours</td>
<td>6150 h/year</td>
</tr>
<tr>
<td>Electrical energy in peak hours</td>
<td>54,389,642 Ft</td>
</tr>
<tr>
<td>Electrical energy in off-hours</td>
<td>79,408,632 Ft</td>
</tr>
<tr>
<td>Income from electrical energy</td>
<td>133,798,274 Ft</td>
</tr>
<tr>
<td>Income from the fermented biofertiliser</td>
<td>1300 Ft/animal unit</td>
</tr>
<tr>
<td>Marketable heat</td>
<td>12,056910 kWh/ year</td>
</tr>
<tr>
<td>Income from the heat</td>
<td>Unit price 10.6 Ft/kWh</td>
</tr>
<tr>
<td>Subsidy of state for desposal of coferments</td>
<td>Unit price 15.000 Ft/t</td>
</tr>
<tr>
<td>Sum income</td>
<td>371,967,920 Ft/year</td>
</tr>
<tr>
<td>Sum income</td>
<td>371,967,920 Ft/year</td>
</tr>
<tr>
<td>Sum cost</td>
<td>92,678,300 Ft/year</td>
</tr>
<tr>
<td>Profit</td>
<td>279,289,620 Ft/year</td>
</tr>
<tr>
<td>The whole value of the investment</td>
<td>612,568,580 Ft</td>
</tr>
<tr>
<td>Payback</td>
<td>2.2 year</td>
</tr>
</tbody>
</table>

4. PROPOSITION

The one third of the produced energy is electrical energy, one third is heat. The one fifth of this is used to heat the fermentors, and the rest of it’s used to satisfy the heat demand of the farm. The excess of electricity

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will be putted by a power electronics and this quantity will be marketable too. The biomanure will be stored in lot of tanks till the utilisation.

To follow of the environmental regulations in all the sectors of the economy the costs of the production are increasing. To use the perfect methods for disposal of the biowaste with the utilisation of their contained energy and nutritional value – it is able to profitable.

BIBLIOGRAPHY

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TESTING THE FINAL PRODUCTS OF HEN GENOTYPES SUITABLE FOR ALTERNATIVE BREEDING

TESTAREA PRODUSELOR FINALE LA GENOTIPURILE DE GĂINI ÎN CAZUL CREȘTERII ALTERNATIVE

F. SÓFALVY*, L. VIDÁCS*

We examined the meat production suitability of the final products of Redbro Normal, Redbro Mini, Avicolor and Starbro meat-type and double purpose genotypes kept alternatively on the Pilot Farm of the College. We fed the birds in different examination groups with different nutrition value feed. During the research we compared the results of the breeding and slaughter tests of the examined genotypes. The examination period was 10 weeks, except Starbro broilers; we kept them for 7 weeks. The genotypes had strong influence on the selling live weight, the specific feed consumption and the cost of the feed. To sum it up we can conclude that we two coloured-feathered genotypes are suitable for meat production under more moderate keeping and feeding conditions than the white feathered industrial type broilers need.

Key words: hen, meat type genotypes, alternative keeping, breeding and slaughter results

1. INTRODUCTION

In the last decade the coloured feathered meat type and double purpose hybrids appeared to broaden the choice and to meet certain consumer demands. These genotypes are behind the performance of the industrial types considering the specific parameters, but the culinary value of the product is higher and their organoleptic quality is more favourable.

Red-feathered meat-hybrids, including their normal and dwarfed types, have been sold in Hungary for ten years. Broiler breeders are particularly satisfied with the resistance and technological tolerance of these birds. The question has come up lately how the coloured feathered meat type hybrids react on the 10-12-week keeping period. If favourable
parameters are achieved then these genotypes will be suitable to be involved in quality organic production programmes.

2. THE OBJECTIVE OF THE RESEARCH

Between 17th March and 27th May 2004 we carried out a research on the commission of the AVIFORM Poultry Trade Office to examine the performance of the final products of the meat type and double purpose Redbro Normal, Redbro Mini, Avicolor and Starbro genotypes suitable to be kept alternatively, which were sold by the Office. During the examinations we sought answer to the questions
- how do the weight of the various genotypes alter from 1 day to 10 weeks of age (until selling) by the two sexes separately and then considering both sexes;
- how much is the amount of feed, the utilisation of feed and the specific cost of feed of the hybrid final products;
- how much is the loss of each genotype in the keeping period;
- the slaughter characteristics;
- does the performance of the final products of the genotypes differ when giving different intensity feed (different nutrition value) to the birds;

3. THE SCHEDULE OF THE EXAMINATIONS

The research was done in the hen house of the Pilot Farm of the University of Szeged College of Agriculture. On 17th March we received 400 chickens from the hatchery of the Office. We put the chickens into 16 boxes, 25 chicks in each examination group, repeated four times. The names of the genotypes can be seen in Table 1.

Table 1: The examined groups

<table>
<thead>
<tr>
<th>Number</th>
<th>Genotypes</th>
<th>Number of groups</th>
<th>Number of chickens.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Shaver Redbro normál</td>
<td>4</td>
<td>100</td>
</tr>
<tr>
<td>2.</td>
<td>Shaver Redbro mini</td>
<td>4</td>
<td>100</td>
</tr>
<tr>
<td>3.</td>
<td>Shaver Avicolor</td>
<td>4</td>
<td>100</td>
</tr>
<tr>
<td>4.</td>
<td>Shaver Starbro</td>
<td>4</td>
<td>100</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>16</strong></td>
<td><strong>400</strong></td>
</tr>
</tbody>
</table>
We had repeated the research with each genotype four times. We fed the birds with different kinds of feed every time. Within a genotype:
- two groups had an intensive broiler feed made in the Feed-Mix Company of Hód-mezőgazda Rt. (in the research it is called “feed with medicine”);
- two groups had a lower nutrition value feed without any medicine content, which was also made in the Feed-Mix Company of Hód-mezőgazda Rt. (in the research it is called “organic feed”).

The keeping period lasted 10 weeks, and at the end of the keeping period we slaughtered 5 female and 5 male birds from each genotype fed with the different kinds of feed, that is 80 chickens altogether. Starbro broilers were kept for 7 weeks only, as the industrial type of meat-chickens are not worth keeping for any longer time than that.

4. RESULTS

4.1. The live weight
The average weight of the one-day-old chickens in our research was 44.07 grams. The genotype averages were significantly different from each other at the level F=21.06 (F₅%= 9.28) P < 5 %. The average weight of Redbro Normal (49.56 g) is significantly greater than the average weight of the other three genotypes. The difference can be seen in Avicolor on the level P < 1 % and in the other three genotypes on the level P < 5 %. Avicolor one-day-old chickens had also less live weight on the level P < 10 % than Starbro broilers.

The average live weight of each genotype in the four repeating from their one-day-old to 10 weeks of age until the end of the keeping period is presented in Table 2. The average live weight of Starbro broilers is shown only until their 7 weeks of age since they were kept for seven weeks.
Table 2: The growth of the average live weight in each genotype at 0-10 weeks of age

<table>
<thead>
<tr>
<th>Age week</th>
<th>Redbro normal</th>
<th>Redbro mini</th>
<th>Avicolor</th>
<th>Starbro</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>live weight (g)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 day old</td>
<td>49.56</td>
<td>42.54</td>
<td>40.26</td>
<td>43.90</td>
<td>44.07</td>
</tr>
<tr>
<td>1</td>
<td>143.42</td>
<td>125.70</td>
<td>107.12</td>
<td>143.87</td>
<td>130.03</td>
</tr>
<tr>
<td>2</td>
<td>316.33</td>
<td>285.05</td>
<td>230.34</td>
<td>358.74</td>
<td>297.46</td>
</tr>
<tr>
<td>3</td>
<td>585.64</td>
<td>538.06</td>
<td>408.26</td>
<td>720.69</td>
<td>562.90</td>
</tr>
<tr>
<td>4</td>
<td>930.85</td>
<td>858.57</td>
<td>641.55</td>
<td>1192.31</td>
<td>904.83</td>
</tr>
<tr>
<td>5</td>
<td>1290.66</td>
<td>1190.58</td>
<td>861.04</td>
<td>1729.82</td>
<td>1265.29</td>
</tr>
<tr>
<td>6</td>
<td>1703.05</td>
<td>1591.62</td>
<td>1082.06</td>
<td>2324.11</td>
<td>1667.69</td>
</tr>
<tr>
<td>7</td>
<td>2127.77</td>
<td>1967.95</td>
<td>1335.85</td>
<td>2855.48</td>
<td>2056.74</td>
</tr>
<tr>
<td>8</td>
<td>2572.45</td>
<td>2384.10</td>
<td>1651.06</td>
<td>-</td>
<td>2192.93</td>
</tr>
<tr>
<td>9</td>
<td>2933.49</td>
<td>2737.55</td>
<td>1932.76</td>
<td>-</td>
<td>2524.75</td>
</tr>
<tr>
<td>10</td>
<td>3307.93</td>
<td>3086.99</td>
<td>2187.27</td>
<td>-</td>
<td>2847.24</td>
</tr>
</tbody>
</table>

Regarding the growth of live weights, the dominance of the white feathered Shaver Starbro Industrial broiler construction was considerable. By their seventh week of age they have an average weight 727.71 g –s more than the average weight of the better Redbro genotype (Redbro normal) by their seventh week of age. Starbro broilers were 887.53 g-s heavier than Redbro minis, and more than twice as much as the Avicolors’ average weight, i. e. 1519. 63 g-s heavier, than the double purpose Avicolor.

The live weights of the experimental groups consuming organic feed or intensive broiler feed is shown in Table 3, by genotypes.

Table 3: The average live weight of both sexes by genotypes consuming different kinds of feed

<table>
<thead>
<tr>
<th>Age week</th>
<th>Feed with medicine</th>
<th>Organic feed</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Redbro normal</td>
<td>Redbro mini</td>
</tr>
<tr>
<td>1 day old</td>
<td>49.77</td>
<td>44.18</td>
</tr>
<tr>
<td>1</td>
<td>164.46</td>
<td>143.24</td>
</tr>
<tr>
<td>2</td>
<td>391.96</td>
<td>325.22</td>
</tr>
<tr>
<td>3</td>
<td>664.89</td>
<td>602.11</td>
</tr>
<tr>
<td>4</td>
<td>1025.41</td>
<td>945.16</td>
</tr>
<tr>
<td>5</td>
<td>1395.22</td>
<td>1276.62</td>
</tr>
<tr>
<td>6</td>
<td>1811.61</td>
<td>1667.29</td>
</tr>
<tr>
<td>7</td>
<td>2238.26</td>
<td>2020.11</td>
</tr>
<tr>
<td>8</td>
<td>2684.89</td>
<td>2417.33</td>
</tr>
<tr>
<td>9</td>
<td>3028.00</td>
<td>2731.56</td>
</tr>
<tr>
<td>10</td>
<td>3442.16</td>
<td>3082.50</td>
</tr>
</tbody>
</table>

By their seventh week of age the average weight of the groups consuming feed with medicine was 2170.51 grams, that of those consuming...
organic feed was 1948.76 grams, the difference between them was 221.85 grams, that is 11.38%. By their tenth week of age the difference decreased to 5.69%, that is $2929.19 - 2771.43 = 157.76$ grams.

When comparing the live weight of the young birds consuming two kinds of feed we can conclude that the live weight compensation of less intensively growing genotypes is better than that of the intensively growing genotypes. This also applies to the live weight growth of the differently developing young male and female chickens.

Consequently it is not necessary to feed the slowly developing genotypes with the feed made up for industrial broilers’ needs, since the compensation of the live-weight during the longer keeping period is so much that young birds consuming lower nutrition value feed can catch up with or at least approach those birds that consumed higher nutrition value feed. From this point of view the question of feeding the two sexes separately comes up with those genotypes where separation by sex is possible.

4.2. Feed conversion

In Table 4, we summarised the growth of the amount of feed used up for producing a 1 kg of live weight gain.

**Table 4: The feed conversion of the experimental groups**

<table>
<thead>
<tr>
<th>Name of genotype</th>
<th>Feed consumption</th>
<th>Feed with medicine</th>
<th>Organic feed</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>kg/kg box</td>
<td>box kg/kg box</td>
<td></td>
</tr>
<tr>
<td>Redbro normal</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>2.60</td>
<td>9</td>
<td>1.77</td>
</tr>
<tr>
<td>2</td>
<td>2.55</td>
<td>10</td>
<td>1.85</td>
</tr>
<tr>
<td>Redbro mini</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>2.73</td>
<td>11</td>
<td>1.68</td>
</tr>
<tr>
<td>4</td>
<td>2.48</td>
<td>12</td>
<td>1.93</td>
</tr>
<tr>
<td>Avicolour</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>2.48</td>
<td>13</td>
<td>2.83</td>
</tr>
<tr>
<td>6</td>
<td>2.54</td>
<td>14</td>
<td>2.84</td>
</tr>
<tr>
<td>Starbro*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>2.21</td>
<td>15</td>
<td>2.33</td>
</tr>
<tr>
<td>8</td>
<td>2.07</td>
<td>16</td>
<td>2.20</td>
</tr>
</tbody>
</table>

* within a 7-week breeding period
If we compare the specific feed consumption of genotypes feeding on two different types of feed we can conclude that the feed conversion of the two Redbro groups, according to their feed consumption, was significantly better than that of the birds consuming organic feed.

With Avicolor birds, as well as Starbro broilers, the specific parameters of the groups consuming feed with medicine was better.

4.3. Slaughter results

In Table 5, we compared the body-part-ratios expressed in live weight percentage.

Table 5: The ratio of body-parts in the examined genotypes

<table>
<thead>
<tr>
<th>Genotype</th>
<th>Net weight</th>
<th>Frying weight</th>
<th>Breast weight</th>
<th>Breast fillet</th>
<th>Thigh weight</th>
<th>Breast + thigh weight</th>
<th>Abdominal fat</th>
<th>Live weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Feed with medicine</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Live weight %</td>
</tr>
<tr>
<td>Redbro normal</td>
<td>77.11</td>
<td>71.92</td>
<td>20.38</td>
<td>13.22</td>
<td>21.30</td>
<td>41.68</td>
<td>2.35</td>
<td></td>
</tr>
<tr>
<td>Redbro mini</td>
<td>76.25</td>
<td>70.93</td>
<td>19.96</td>
<td>13.13</td>
<td>21.37</td>
<td>41.34</td>
<td>2.22</td>
<td></td>
</tr>
<tr>
<td>Avicolor</td>
<td>76.63</td>
<td>70.84</td>
<td>17.86</td>
<td>11.47</td>
<td>21.63</td>
<td>39.49</td>
<td>1.59</td>
<td></td>
</tr>
<tr>
<td>Starbro</td>
<td>80.04</td>
<td>74.25</td>
<td>25.75</td>
<td>18.74</td>
<td>22.09</td>
<td>47.84</td>
<td>1.28</td>
<td></td>
</tr>
<tr>
<td><strong>Organic feed</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Live weight %</td>
</tr>
<tr>
<td>Redbro normal</td>
<td>77.74</td>
<td>72.42</td>
<td>19.71</td>
<td>13.11</td>
<td>21.86</td>
<td>41.57</td>
<td>2.50</td>
<td></td>
</tr>
<tr>
<td>Redbro mini</td>
<td>77.36</td>
<td>71.97</td>
<td>19.89</td>
<td>13.26</td>
<td>21.47</td>
<td>41.36</td>
<td>2.32</td>
<td></td>
</tr>
<tr>
<td>Avicolor</td>
<td>77.15</td>
<td>71.00</td>
<td>18.75</td>
<td>11.87</td>
<td>21.19</td>
<td>39.95</td>
<td>0.83</td>
<td></td>
</tr>
<tr>
<td>Starbro</td>
<td>77.89</td>
<td>71.78</td>
<td>22.20</td>
<td>15.76</td>
<td>21.78</td>
<td>43.97</td>
<td>1.10</td>
<td></td>
</tr>
<tr>
<td><strong>The average of birds fed with organic feed + feed with medicine</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Live weight %</td>
</tr>
<tr>
<td>Redbro normal</td>
<td>77.42</td>
<td>72.17</td>
<td>20.04</td>
<td>13.16</td>
<td>21.58</td>
<td>41.62</td>
<td>2.43</td>
<td></td>
</tr>
<tr>
<td>Redbro mini</td>
<td>76.81</td>
<td>71.45</td>
<td>19.93</td>
<td>13.20</td>
<td>21.42</td>
<td>41.35</td>
<td>2.27</td>
<td></td>
</tr>
<tr>
<td>Avicolor</td>
<td>76.89</td>
<td>70.92</td>
<td>18.31</td>
<td>11.67</td>
<td>21.41</td>
<td>39.72</td>
<td>1.21</td>
<td></td>
</tr>
<tr>
<td>Starbro</td>
<td>78.97</td>
<td>73.01</td>
<td>23.97</td>
<td>17.25</td>
<td>21.93</td>
<td>45.91</td>
<td>1.19</td>
<td></td>
</tr>
</tbody>
</table>

As for the ratio of the parts of the body the best results were achieved by Starbro broilers. The ratio of the frying weight (73.01%) as well as the ratio of the weight of the breast with bone (23.97%) and the breast fillet (17.25%) was well beyond the results of the other genotypes.
There was no significant difference between the examined genotypes concerning the weight of thighs. The Avicolor genotype had the lowest results in the ratio of the body-parts.

We could not find objective laws in the difference of the body part ratios of the examined groups consuming different nutrition value feed. While the obtained results did not differ in case of the two Redbro genotypes, in the case of Avicolor the examination groups consuming organic feed had better results, although by only a few decimals. In case of the Starbro genotype the groups consuming feed with medicine proved to be better as for their body-part ratio.

5. CONCLUSIONS

To sum up we can say that the two colour-feathered genotype is suitable for meat production under more modest conditions (keeping and nutrition) than the condition provided for the white feathered industrial type broilers. As to their body weight, by their eighth week of age these genotypes are ready for slaughter. With regard to the ratios of their main products (breast + thighs) they are only approximately 4% behind the industrial type of broilers.

We suggest adjusting the nutrition value (energy level and protein content) of the feed for slowly developing coloured feathered broiler combinations to a lower level than that of the feed for the industrial type broilers. During the longer keeping period these young birds can compensate their initial fall-back.

The examinations proved that it is advisable to keep and feed male and female colour-feathered hybrid constructions separately.

BIBLIOGRAPHY

The foot diseases of sheep and goats might hinder the grazing of the animals and by this the function of landscape management and landscape maintenance. The harder foothorn resists foot diseases better than the soft foothorn. The water content of the horn significantly decreases, the Zn content and Ca:P ratio moderately increases the Brinell hardness value of the horn. The wet lowland grazing fields are not suitable for grazing sheep and goats and for landscape maintenance because of foot diseases and endoparasitic infections. The lower edge of the horn-wall, the so-called carrying edge has an important role in providing a possibility of motion for the animals. The harder horn grows more slowly than the softer one, thus, at these animal breeds, hoof-trimming and hoof-care must be carried out at longer intervals to prevent the overgrowth of the horn and to prevent foot diseases.

Key words: sheep, goat, leghorn, hardness, mineral content

1. INTRODUCTION

Sheep have the most important role in the utilisation of grazing lands as they are out there 7-8 months in a year. The ever growing goat stock also may be taken into consideration in utilisation of the fields. The utilisation of the grazing lands serves the landscape maintenance and landscape protection as well since it hinders these areas to get weedy. This applies particularly to the extensive grasslands giving the 60% of all the grasslands which can be utilised mainly by sheep and goats. Besides, the goats are also suitable for maintaining the neglected bushy areas.

A common foot disease of sheep and goats is the footrot, which hinders the motion and the grazing of the animals. If the disease appears on stock-level, beside the decreasing production of cheap products the level of
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grassland utilisation also decreases. There are a lot of factors influencing the appearance of foot-rot. One of these important factors is the hardness of the foothorn. The harder foothorn resists better the pathogen parasites trying to penetrate the horn than the softer horn.

2. THE OBJECTIVE OF THE RESEARCH

The hardness of the foothorn is determined by its mineral and water content together. In our previous examinations we found out how much the Ca-, P- and Zn content and the Ca:P ratio of the foothorn affects the hardness of the foothorn. During our research we tried to find an answer to the following questions:

• How much the water content of the foothorn of sheep affects the hardness of the foothorn;
• Is there a difference in the mineral content of the foothorn of the various goat breeds and between that of the foothorn of goats and sheep;
• Is there a difference in the speed of foothorn growing of the sheep and the goat.

3. MATTER AND METHODS

We examined the Ca-, P- and Zn content and the Ca:P ratio of the foothorn and the growing speed of the foothorn in Hungarian Merino And British Milker sheep as well as Saanen and Alpine goat breeds. The Ca- és Zn content of the horn was determined by atomic absorption method, while the P content was determined by spectro-photometric method. When measuring the hardness of the horn we calculated with HB5/156/60 Brinell harness value.

4. RESULTS

4.1. The correlation between the hardness and the water content of the foothorn of the sheep

There is a negative linear correlation between the water content (X) and the Brinell hardness value (Y) of the foothorn significant at the P < 0,1 % level. The two variables are in close negative correlation (r = - 0,86). The 1 % growth in the water content of the foothorn decreases the Brinell hardness value by ≈ 1,4 N/mm². According to the determinant coefficient (R² = 0,7335) the growth of the water content in the foothorn has a
significant influence ≈ 73 % on the decrease of the hardness of the horn (Figure 1.).

**Figure 1: The relation analysis of the hardness and the water content of the horn-wall of sheep (4-50 % water content horn)**

\[ Y' = 76,888 - 1,4359X(N/mm^2) \]

\[ F = 170,63 \quad (F_{0,1\%} = 11,97) \]

\[ R^2 = 0,7335 \quad r = -0,86 \quad n = 64 \]

Therefore, to prevent foot diseases, the wet lowland grazing fields are not suitable to be utilised by sheep and goats and consequently not suitable for landscape maintenance and landscape protection either. On such fields, beside the risk of endoparasitic infections, the hard foothorn significantly softens because of the constant wet conditions and that favours the development of foot diseases.

**4.2. The mineral content of the wall of the horn and the sole of the horn horn in goats**

B. Kovács A. (1977) says that a higher level of Ca hardens, while a higher level of P softens the foot-horn. Beside its water content, he hardness of the horn is affected by its Ca:P ratio. The wider the Ca:P ratio is, the harder the horn is, with the same water content. This statement was justified by our examinations in the foothorn of the sheep. Between the Ca:P ratio (X) and the Brinell hardness value of the 8 % water content (air-dry) sheep-
horn we found a positive linear correlation $Y' = 31.326 + 12.726 \times X \text{ (N/mm}^2\text{)}$ which was significant on the level of $P < 1\%$. The widening of the Ca:P ratio of the foothorn contributed 50\% ($R^2 = 0.5008$) to the increase of the hardness.

Table 1: The Ca-, P- and Zn content of Saanen and Alpine goat breeds

<table>
<thead>
<tr>
<th>Breed</th>
<th>Part of horn</th>
<th>n</th>
<th>Ca mg/kg</th>
<th>P mg/kg</th>
<th>Ca:P</th>
<th>Zn</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>wall of horn</td>
<td>15</td>
<td>5431</td>
<td>1958</td>
<td>2.92*</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>sole of horn</td>
<td>10</td>
<td>4992</td>
<td>2697</td>
<td>2.02*</td>
<td>-</td>
</tr>
<tr>
<td>Alpine</td>
<td>wall of horn</td>
<td>16</td>
<td>4534</td>
<td>2103</td>
<td>2.19**</td>
<td>68**</td>
</tr>
<tr>
<td></td>
<td>sole of horn</td>
<td>12</td>
<td>3264</td>
<td>2157</td>
<td>1.53**</td>
<td>57**</td>
</tr>
</tbody>
</table>

* $< 5\%$  ** $< 0.1\%$  o $< 5\%$

Within a type according to the results of Table 1. the Ca:P ratio of the harder horn-wall of the Saanen goat on the level of $P < 5\%$ (2.92-2.02), while that of the Alpine goat on the level of $P < 0.1\%$ (2.19-1.53) was significantly wider than in the softer sole horn. (Our previous examinations proved it in sheep as well).

Lindeman and Mills (1980) say that the higher level of Zn increases the hardness of the foothorn. Coenen és Spitzlei (1997) found that the lower Zn content decreases the hardness of the foothorn. Our previous examinations also proved that, because we found a positive linear correlation between the Zn content (X) and the Brinell hardness value (Y) of the foothorn of sheep $Y' = 30.016 + 0.5869 \times X \text{ (N/mm}^2\text{)}$, which was significant on the level $P < 5\%$. The growth of the Zn content of the foothorn contributes 25\% ($R^2 = 0.2499$) to the growth of the hardness.

According to our experiments the Zn content (68 mg/kg) of the harder hornwall of the Alpine goat was higher on the level of $P < 0.1\%$ than that of the sole of the horn (57 mg/kg). (Table 1.)

These results prove that the bottom part of the horn-wall, the so-called carrier edge of the horn with a wider Ca:P ratio and a higher Zn level has an important role, just as in case of goats, in the advancement of the motion of the animal and in carrying its weight. This can be more important in goats, concerning their hind limbs. Goats often stand up on their two hind
feet (e.g. when eating foliage) and then the weight of the whole body is born on the foothorn of the two posterior limbs only.

4.3. The relation analysis of the mineral content of the foothorn in sheep and goats

Table 2: The Ca- és P content of the foothorn of the Hungarian Merino sheep and the Saanen goat

<table>
<thead>
<tr>
<th>Name</th>
<th>Part of horn</th>
<th>n</th>
<th>Ca (mg/kg)</th>
<th>P (mg/kg)</th>
<th>Ca:P</th>
</tr>
</thead>
<tbody>
<tr>
<td>wall of horn</td>
<td>sheep</td>
<td>10</td>
<td>1810*</td>
<td>548*</td>
<td>3,19</td>
</tr>
<tr>
<td>goat</td>
<td></td>
<td>15</td>
<td>5431*</td>
<td>1959*</td>
<td>2,92</td>
</tr>
<tr>
<td>sole of horn</td>
<td>sheep</td>
<td>10</td>
<td>1152*</td>
<td>580*</td>
<td>2,01</td>
</tr>
<tr>
<td>goat</td>
<td></td>
<td>10</td>
<td>4992*</td>
<td>2697*</td>
<td>2,02</td>
</tr>
</tbody>
</table>

* < 0,1 %

The Ca (5431) and P content (1959) of the horn-wall of goats is significantly higher than that of sheep (1810; 548) on the level P < 0,1 %. The Ca:P ratio of the horn-wall is approximately the same in both species (3,19; 2,92); there is no statistical difference between them. We experienced the same in case of the sole of the horn. The Ca- and P content of the sole of the horn in goats (4994; 2697) is also higher than that of sheep (1152; 580) on the level P < 0,1 %, but there is no difference between their Ca:P ratio (2,01; 2,02). Consequently the hardening effect of the higher Ca level of the foothorn of goats is neutralised by the higher P level. It means that there is no significant difference between the two species concerning the Ca:P ratio of either the horn wall or the sole-horn. The hardness of the unpigmented foothorn of the two species is approximately the same.

Table 3: The Zn content of the foothorn of the British Milker sheep and the Alpine goat

<table>
<thead>
<tr>
<th>Name</th>
<th>Part of horn</th>
<th>n</th>
<th>Zn (mg/kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>British Milker</td>
<td>wall of horn</td>
<td>16</td>
<td>76</td>
</tr>
<tr>
<td></td>
<td>sole of horn</td>
<td>16</td>
<td>41*</td>
</tr>
<tr>
<td>Alpine goat</td>
<td>wall of horn</td>
<td>16</td>
<td>68</td>
</tr>
<tr>
<td></td>
<td>sole of horn</td>
<td>12</td>
<td>57*</td>
</tr>
</tbody>
</table>

* < 0,1 %
There is no statistically proved difference between the Zn content of the foothorn in the pigmented-horned British Milker sheep and that of the Alpine goat. The sole of the horn of the Alpine goat, however, contains significantly more Zn than that of the British Milker (57-41) on the level of P < 0.1%.

4.4. The growth of the foothorn of sheep

There is a negative linear correlation between the Ca:P ratio of the foothorn (X) and the speed of the foothorn growth (Y), which is significant on the level P < 0.1%. According to the determinant coefficient ($R^2 = 0.3482$) the widening of the Ca:P ratio contributes 35% to the decrease of the speed of foothorn-growth. Increasing the Ca:P ratio of the foothorn by 1 decreases the growth of the horn wall by $\approx 1.4$ mm monthly (Figure 2.).

Figure 2: The relation analysis of the Ca:P ratio and the growth of the foothorn (horn-wall) of the sheep

\[ Y' = 10.798 - 1.3982X \text{ (mm/month)} \]

\[ R^2 = 0.3482 \]

4.5. The growth of the foothorn of goats

There is a negative linear correlation between the Ca:P ratio of the horn wall (X) and the speed of the foothorn growth (Y), which is significant on the level P < 5%. Increasing the Ca:P ratio of the foothorn by 1 decreases the growth of the horn wall by $\approx 0.8$ mm monthly. According to the
The determinant coefficient \( R^2 = 0.2680 \) the widening of the Ca:P ratio contributes 27% to the decrease of the speed of foothorn-growth. (Figure 3.).

The results indicate that both in sheep and in goats the harder foothorn, because of the wider Ca:P ratio, grows more slowly than the soft one. This is why, in case of such types, it is usually not necessary to make hoof-trimming so often to prevent its overgrowth and to prevent foot diseases.

**Figure 3: Relation analysis of the Ca:P ratio and the growth of the foothorn (horn-wall) of the Saanen goat**

\[
y' = 7.6337 - 0.7782X \text{ (mm/hó)} \quad F = 4.76 (F_{0.05} = 4.6) \quad P < 0.05 \quad r = -0.52 \quad R^2 = 0.2680 \quad n = 15
\]

**Table 4: The comparison of the foothorn-growth of the Saanen goat and the Hungarian Merino sheep**

<table>
<thead>
<tr>
<th>Name</th>
<th>n</th>
<th>The growth of the horn-wall (mm/month)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>kecske</td>
<td>15</td>
<td>5.7</td>
</tr>
<tr>
<td>juh</td>
<td>30</td>
<td>6.3</td>
</tr>
</tbody>
</table>

The monthly rate of the horn-wall growing speed of goats is somewhat lower (5.7) than that of sheep (6.3) but there is not a statistically proven difference between the two results (Table 2.). From the results we
can conclude that the hornwall-growing speed of the two species is approximately the same. This draws the attention that the regular hooftrimming (the creation of the carrying edge) is just as important with goats as with sheep to prevent foot diseases. It is desirable to take into account in closed goat-keeping technologies where goats do not graze. Then the goats are stay inside during the day all the year round – except the time they spend in the run every day. The litter has no wearing effect as the soil of the grazing field does so nothingy decreases the overgrowth of the hornwall.

REFERENCES


We examined the operation of an ostrich farm that was inaugurated in 2003 from economic point of view, since we wanted to know if it can operate economically. There are a trio of breeding ostriches and 34 yearlings on the farm. We analysed the keeping costs including: costs of hatching and pre-breeding, wages and common charges, the cost of energy, the cost of feed and medication. The College made a contract with an EU conform ostrich slaughterhouse, so we were able to calculate the expected costs of the slaughter. These include: the cost of slaughter, the cost of conservation and storage of the skin, the cost of distribution, the cost of transport and the fee paid for the Hungarian Ostrich Breeders’ Association (HOBA). The expected income will be: the price of the meat, the price received expectedly for the skin, and the price for giblets. When we subtract the keeping costs, the costs of feed and medication as well as the slaughter costs we get the profit. Beside the economic analysis, we mention some issues relating to keeping technology in order to see more clearly the importance of the keeping of this, nowadays very popular, bird. To sum up, we can state that our existing ostrich house operates economically, however not with a considerable yield, but this is enough for our institution because our main purpose is education.

Key words: ostrich, economic, keeping, feeding, results

1. INTRODUCTION

Ostrich species appeared on Earth millions of years ago. In ancient times they were highly respected. First they were kept for their feathers, then for their skin, and nowadays for their meat. The demand for information concerning ostriches and everything in connection with their keeping in commercial environment has increased recently due to the growing interest...
in this bird and its breeding. This is why it is essential to know these birds better and thus to develop an optimal breeding technology they show us their reactions to the environmental effects through their production. It is important to know every detail of the behaviour of the “domesticated” ostrich because in Hungary there is not an optimal breeding and keeping technology for them and, as it is well-known, this is in close connection with the welfare of the ostriches, which can be seen from their behaviour. When forming a keeping and nutrition technology every small detail has to be considered carefully and an optimum must be found, which is adequate for all birds. Characteristic of the species and of the type, any bird can produce the best when the appropriate environmental conditions are provided for them and their nutrition and keeping demands are met.

The prerequisite of ostrich keeping in Hungary are to establish appropriate runs, to operate hatcheries that can serve the special demands of handling the characteristic eggs, to provide the hygienic conditions for breeding, the meet the nutrition demands of the young birds as well as the breeding stock.

2. THE OBJECTIVE OF THE EXAMINATION

We examined the operation of this ostrich farm that was inaugurated in 2003 from economic point of view, since we wanted to know if it can operate economically. During the examinations we sought answer to the questions:

- the keeping cost
- the feed and medicines cost
- expected slaughter costs
- expected income
- the size of the profit

Beside the economic analysis, we mention some issues relating to keeping technology in order to see more clearly the importance of the keeping of this, nowadays very popular, bird.
3. DISCUSSION

According to Madeiros (1994) the ostrich is the largest living bird the height of which might reach 2.7-2.8 m-s, and their weight might go up to 150 kg-s. It can be kept for breeding for 40 years but there were examples for certain birds living as long as 80 years.

Keeping ostriches on large-number farms can be estimated as good considering the technology as well as nutrition, hygiene and animal health. At the same time we can see more deficiency and inadequacy of the optimal technology on farms with only 1-3 families or less animals.

Winning a reputed national prize played an important role in the establishment of the ostrich farm on the Pilot Farm of the University of Szeged, College of Agriculture. We received a sum of grant from the application that was enough to have a stable turn into a modern ostrich house with runs and to buy a breeding trio of ostriches as well. This was the base of the stock. We examined the operation of this ostrich farm that was inaugurated in 2003 from economic point of view, since we wanted to know if it can operate economically. There are a trio of breeding ostriches and 34 yearlings on the farm.

The majority of the ostrich stock is to be utilised by reproduction. Unfortunately, we cannot speak of real breeding, only reproduction. Ostrich keepers have not worked out the conditions of the acceptance of breeding stocks, the judgement of appearance and the possibilities of registration in a herd-book. Breeding animals are mainly selected from slaughter animals and put into families for the purpose of reproduction. Ratite birds form families, two females belong to one male, rarely only one.

The pen can be made in different ways; one requirement is that it should be suitable for keeping the birds on a closed area. The primary task of the pens made of locust, iron-pipes, wire netting or the combination of all these is to prevent the birds from breaking through and they have to be constructed without any overhangs or protruding parts that might cause injury.

Birds of any age can hardly tolerate the slippery, frosty and icy soils that result in broken bones in the wings or in the legs.

Ostriches endure even the severe winter weather very well if their place is void of ice.
If a shiny (sharp or pointed) metal object gets into the run, ostriches become curious; they pick up and swallow them. These objects might cause a block in the oesophagus, or, in more serious cases, muscle injuries in the gizzard.

The male mates with the females several times a day. Females lay eggs every other day in the 1-1.5 m wide and 30-50 cm deep nest made by the male in the sand.

The egg usually weighs 1-2 kg-s, an average of 1.4-1.8 kg-s and it has a thick shell. In summer, if the weather turns cold, the ostrich might stop laying eggs and even after the beginning of warm weather the egg-laying process might continue only after a week or so. A suddenly occurring event might result in the stop of egg production as well. (Frank-Ásványi, 1996)

During our experiments we found that ostriches in captivity have no brooding instincts (the sight of the egg is missing and perhaps this is why they do not brood), but the male guards the eggs alertly.

It takes 42 days for the eggs to hatch on 36-36.5 °C in the hatchery. Before putting the eggs into the machine the eggs are numbered, then “candled”, their air space is determined and signed on the shell. After hatching the chicks remain in the hatchery until their yolk sac disappears and they get a little stronger. The College had the hatching and the pre-breeding processes completed by a private entrepreneur. We paid an average of 10,000 HUF for each bird taken from the hatchery.

The most sensitive period of ostrich breeding is the start of breeding, when illnesses might develop most frequently, until the chicks get about 3 weeks old. They are given a starting feed-mixture high in protein, energy and minerals, ad libitum. Additional vitamins are supplied in their drinking water. The dry feed is supplemented with finely cut green lucerne, nettle or some other kind of fresh and tender green plants. To optimise their digestion the chicks should pick some small pebbles or grit as well. Deeming (1999) says that it is in this age-group where mortality is the highest.

Another most important aspect in ostrich keeping and breeding is the issue of nutrition. The result of reproduction primarily depends on the nutrition of the ostrich families. Apart from the age-group and the time of the year, it is most appropriate to provide them with a feed mixture (concentrate and grain as well) made up according to their needs.
There are some places where ostriches can feed on grains (grain concentrates) exclusively. Oats rightfully have an outstanding role in the rank of the feed–stuffs. It is necessary to decrease the amount of maize in the nutrition of both breeding and slaughter animals. This species is inclined to fattening, which is not favourable for the egg production and for the after-slaughter qualification. Several breeders give exclusively lucerne as green or hay feedstuff.

We analysed the keeping costs including: costs of hatching and pre-breeding, wages and common charges, the cost of energy, the cost of feed and medication.

The wage of the ostrich tender was determined 14,559 per bird, that is calculating 9 month adds up to 110,000 HUF gross wage, in 4-hour (part-time) shifts. The energy costs is composed of the cost of electricity and gas. For the winter months (4 months) we calculated the cost of electricity 1,050 HUF per bird and the cost of gas 7,661 HUF per bird. In this way the keeping cost adds up to 32,325 HUF per bird.

### Table 1: Keeping costs

<table>
<thead>
<tr>
<th>Keeping costs</th>
<th>HUF/bird</th>
</tr>
</thead>
<tbody>
<tr>
<td>hatching and pre-breeding</td>
<td>10000</td>
</tr>
<tr>
<td>wages and common charges</td>
<td>14559</td>
</tr>
<tr>
<td>(9 month*110000 HUF/2/34)</td>
<td></td>
</tr>
<tr>
<td>energy for 4 month: –electricity (300 KW*29,75 HUF/34)</td>
<td>1050</td>
</tr>
<tr>
<td>–gas (1000 m³*65,12 HUF/34</td>
<td>7661</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>32325</strong></td>
</tr>
</tbody>
</table>

The costs of feed and medication is 14,654 HUF per bird that comprises the cost of the starting feed, the cost of the growing (rearing) feed, the cost of the laying feed, the cost of the grains, the cost of the dry food and the cost of premixes and medicines.
The College made a contract with an EU conform ostrich slaughterhouse, so we were able to calculate the expected costs of the slaughter. These include: the cost of slaughter, the cost of conservation and storage of the skin, the cost of distribution, the cost of transport and the fee paid for the Hungarian Ostrich Breeders’ Association (HOBA).

Out of the expected slaughter costs the slaughter itself is the most expensive, 10,000 HUF per bird, besides we pay 500 HUF per item for the conservation and storage of the skin. Thirty kg-s of valuable meat can be obtained from every bird and the distribution cost of this will be 3,675 HUF. The Hungarian Ostrich Breeders’ Association (HOBA) requires a contribution of 1,000 HUF per bird from each breeder for export coordination activities.

The transport to the slaughterhouse cost, in accordance with the agreement with the transporter will be 25,000 HUF per ten birds. Calculating with these figures the slaughter costs add up to 17,675 HUF altogether.

### Table 2: Feed and medicines

<table>
<thead>
<tr>
<th>Feed and medicines</th>
<th>Consumed feed kg</th>
<th>Unit price HUF</th>
<th>Cost HUF/bird</th>
</tr>
</thead>
<tbody>
<tr>
<td>starter</td>
<td>940</td>
<td>71,30</td>
<td>1972</td>
</tr>
<tr>
<td>rearing feed</td>
<td>4280</td>
<td>60,95</td>
<td>7673</td>
</tr>
<tr>
<td>laying feed</td>
<td>400</td>
<td>64,40</td>
<td>758</td>
</tr>
<tr>
<td>grains</td>
<td>3000</td>
<td>25,00</td>
<td>2206</td>
</tr>
<tr>
<td>fresh and dry food (fresh lucerne, hay and silage)</td>
<td>15000</td>
<td>3,50</td>
<td>1545</td>
</tr>
<tr>
<td>premixes and medicines</td>
<td></td>
<td></td>
<td>500</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td></td>
<td>14654</td>
</tr>
</tbody>
</table>
Table 3: Expected slaughter costs

<table>
<thead>
<tr>
<th>Expected slaughter costs</th>
<th>HUF/bird</th>
</tr>
</thead>
<tbody>
<tr>
<td>slaughter</td>
<td>10000</td>
</tr>
<tr>
<td>skin conservation and storage</td>
<td>500</td>
</tr>
<tr>
<td>distribution</td>
<td>3675</td>
</tr>
<tr>
<td>contribution for export co-ordination activities (HOBA)</td>
<td>1000</td>
</tr>
<tr>
<td>transport to slaughter house</td>
<td>2500</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>17675</strong></td>
</tr>
</tbody>
</table>

The expected income will be: the price of the meat that is 51,450 HUF per bird, the price received expectedly for the skin is 12,250 HUF per item, and the price for neck and giblets will be 2,500 HUF per bird. The expected income totals up to 66,200 HUF per bird.

Table 4: Expected income

<table>
<thead>
<tr>
<th>Expected income</th>
<th>HUF/item</th>
</tr>
</thead>
<tbody>
<tr>
<td>skin (50 €/item*245 HUF)</td>
<td>12250</td>
</tr>
<tr>
<td>valuable meat (30 kg<em>7 €/kg</em>245 HUF)</td>
<td>51450</td>
</tr>
<tr>
<td>neck (3 kg*300 HUF)</td>
<td>900</td>
</tr>
<tr>
<td>giblets (2 kg*800 HUF)</td>
<td>1600</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>66200</strong></td>
</tr>
</tbody>
</table>

When we subtract the keeping costs, the costs of feed and medication as well as the slaughter costs we get a result of 1,546 HUF profit per bird. So after 34 birds the expected profit can be 52,546 HUF.

Table 5: Income and costs

<table>
<thead>
<tr>
<th>Income and costs</th>
<th>HUF/bird</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expected income</td>
<td>66200</td>
</tr>
<tr>
<td>Keeping costs</td>
<td>32325</td>
</tr>
<tr>
<td>Feed and medicines costs</td>
<td>14654</td>
</tr>
<tr>
<td>Expected slaughter costs</td>
<td>17675</td>
</tr>
<tr>
<td><strong>RESULT</strong></td>
<td><strong>1546</strong></td>
</tr>
</tbody>
</table>
V. CONCLUSION

To sum up, we can state that our existing ostrich house operates economically, however not with a considerable yield, but this is enough for our institution because our main purpose is education.

REFERENCES

This study presents synthetically the actual stage of the Romanian agriculture during 1990-1994 and also its perspectives until 2007 and 2009 concerning the compatibility with the requests and the standards of UE.

Key words: integration, viable agricultural exploitations.

1. GENERAL ASPECTS

1.1. ACTUAL SITUATION OF THE RURAL DEPARTMENT

At the 1st of July 2003, 46.6% of the Romanian population was established in the rural environment comparing to 45.4% in 2000 and 45.7% in 1990. The percentage of the Romanian rural population overpasses the rural population from the UE countries, which is under 5%.

1.2. RURAL ENVIRONMENT WORK FORCE

In 2004 from the whole rural population: 57.1% worked in agriculture (whole time or part time); 17% in industry or construction; 5% in the commerce; 3.5% in local administration; 17.4% in other fields (education, health, culture, services, etc.)

In 2003, 34.7% from the Romanian population worked in agriculture and in forestry, decreasing comparing to 41.4% in 2000.

During the implementation of UE request in agriculture, the Romanian population working in agriculture will decrease until 2007-2009 with almost 2000 persons, assigning them to non-agricultural activities. In the present, this percentage (34.7%) overpasses the UE average of 5%.

Implementing the UE requests in agriculture, until 2007-2009 almost 2 million active persons should find another job in non-agricultural fields.

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**Banat’s University of Agricultural Sciences and Veterinary Medicine Timișoara

- Faculty of Agricultural Management
Now a day, the Romanian agricultural work force is almost equal with the USA agricultural work force and three times higher than France, Germany and Italy, considered each county separately.

The training of the rural work force compared to the urban situation is presented as follows:

<table>
<thead>
<tr>
<th>Denomination</th>
<th>Rural environment (%)</th>
<th>National economy (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Without graduation</td>
<td>0.98</td>
<td>2.4</td>
</tr>
<tr>
<td>Primary school (I – IV grades)</td>
<td>22.5</td>
<td>8.72</td>
</tr>
<tr>
<td>Gymnasium</td>
<td>40.58</td>
<td>20.64</td>
</tr>
<tr>
<td>High school</td>
<td>9.0</td>
<td>25.89</td>
</tr>
<tr>
<td>College and technical school</td>
<td>0.64</td>
<td>4.78</td>
</tr>
<tr>
<td>University college</td>
<td>0.20</td>
<td>1.80</td>
</tr>
<tr>
<td>University graduation</td>
<td>0.67</td>
<td>8.6</td>
</tr>
</tbody>
</table>

Source: The Economist, no. 1848/2005

There are big differences comparing to the whole national economy, this implies some training measures of the rural population before and after joining period. In the present day, the Romanian agriculture population represents 50% of the agricultural population from the 15 countries members of UE, and the number of exploitation represents 60% comparing to those existing in UE – 15.

1.3. SOCIAL ASPECTS

The rural population incomes are 27% under the urban level. The poverty level of the rural population is 42% comparing to 18% in of the urban population. At present time, almost 46% of the rural population incomes are “natural income sources” and 25% of the poor people from the rural environment are farmers working on their own subsistence exploitations.

2. MATERIAL BASIS OF THE AGRICULTURE

Now, Romania has almost 173,000 tractors and 25,000 combines, 70% of them are functionally expired. The average load of a tractor is 54.4 ha, much over the average in the UE, and the quantity of chemical fertilizer is decreasing, from 1103.1 thousand tones, in 1990, to 362000 tones, in 2003, having a negative effect on the productivity of the farmed land.

3. THE SIZE AND STRUCTURE OF AGRICULTURAL EXPLOITATIONS

In 2002, in Romania were 4484893 agricultural exploitations with an average size of 3,5 ha. The individual exploitations were 4462221,
representing 99.5% of the whole exploitations and had an average size of 1.89 ha. The percentage of other types of exploitation was: societies (agricultural associations) – 0.05%; trading companies – 0.14%; other types of exploitations (co-operative societies, public administration societies etc.)– 0.31%. From the whole of the existent exploitation, almost 15% are selling at least a third of their production and only 4% are selling more than 50%. With the actual structure of the rural families, Romania can join the European competition with almost 23000 exploitations; the other subsistence exploitations do not have any chance to survive after joining the UE. Even in the most optimistic case where the agriculture producers will join different association or co-operative forms, there is the risk that in 2010 disappear at least 1.5 million subsistence exploitations, which do not fulfill the conditions to receive support from the state or UE funds. At present time, almost 67.4% of the farms have a subsistence characteristic (1 – 3 ha) and only 25.2% are 3 – 15ha large (semi-subsistence), the rest of 7.4% can be considered commercial farms obtaining incomes from agriculture.

The average size of an agricultural exploitation in UE – 15 is over 17 ha, the smallest are in Italy of 5.9 ha, Greece 4.5 ha, Portugal 8.7 ha and the biggest are in Great Britain 70.1 ha, Luxemburg 39.9 ha, Denmark 39.6 ha and France 38.5 ha.

The relation between the average size of exploitation and the number of animals in UE and Romania is the following:

Table 2. The relation between the average size of the exploitation and the number of animals

<table>
<thead>
<tr>
<th>Country</th>
<th>Number of exploitations (thousands)</th>
<th>Average size of exploitation (ha)</th>
<th>Cattle per exploitation (heads)</th>
<th>Milk cows (heads)</th>
<th>Pigs per exploitation (heads)</th>
</tr>
</thead>
<tbody>
<tr>
<td>UE- 15</td>
<td>7.70</td>
<td>17.4</td>
<td>43.9</td>
<td>22.3</td>
<td>93.2</td>
</tr>
<tr>
<td>Romania</td>
<td>484.93</td>
<td>3.5</td>
<td>0.64</td>
<td>0.39</td>
<td>1.14</td>
</tr>
<tr>
<td>Denmark</td>
<td>69</td>
<td>39.6</td>
<td>69.1</td>
<td>42.9</td>
<td>517.5</td>
</tr>
<tr>
<td>Great Britain</td>
<td>235</td>
<td>70.1</td>
<td>89.1</td>
<td>71.7</td>
<td>545.1</td>
</tr>
<tr>
<td>France</td>
<td>735</td>
<td>38.5</td>
<td>62.2</td>
<td>29.5</td>
<td>161.5</td>
</tr>
<tr>
<td>Greece</td>
<td>802</td>
<td>4.5</td>
<td>14.2</td>
<td>16.4</td>
<td>39.1</td>
</tr>
<tr>
<td>Portugal</td>
<td>451</td>
<td>8.7</td>
<td>7.6</td>
<td>4.2</td>
<td>17.2</td>
</tr>
<tr>
<td>Spain</td>
<td>1.278</td>
<td>19.7</td>
<td>24.8</td>
<td>10.8</td>
<td>60.2</td>
</tr>
<tr>
<td>Germany</td>
<td>567</td>
<td>30.3</td>
<td>50.8</td>
<td>25.2</td>
<td>103.1</td>
</tr>
<tr>
<td>Netherlands</td>
<td>126.8</td>
<td>17.7</td>
<td>82.8</td>
<td>44.0</td>
<td>643.1</td>
</tr>
</tbody>
</table>


The exploitations with milk cows from Romania is 0.64 heads comparing to the 22.3 heads average of UE. In order to realize a viable
exploitation, the exploitations from Romania have to realize a production of 3700 l/cow and have 10-16 heads. The present milk production for processing and commercializing only 15% comes from commercial farms (comparing to 85-90% in UE) and 85% from small exploitations with small number of heads (1 – 3).

In Romania only 26.5% of the families, have cattle with an average of 2.36 heads and 1.46 cows/exploitation, much under the needs of a viable exploitation. Over 80% of the zoo-technical production is insured by cca. 2 million autarchic exploitations, many of them being eliminated by 2009, in order to insure 3 million tones of milk for commercialization with a production of 3700 l/year/cow only 800000 cows are needed instead of 1700000.

Also, only 1.23 millions breed pigs, meaning 27.4%, an average of 3.61 heads, much under the average of 93.2 in UE or other countries like: Denmark 517.5 heads, Great Britain 545.1 heads, France 161.5 heads or others, with reduced potential, like: Greece 39.1 or Portugal 17.2 heads. In Romania 64.25% families breeding pigs have only 3 heads and the average per exploitation is 1.41 heads and only 17% exploitation have 50 heads.

Only 774389 families are breeding sheep, representing 17.3% of the whole exploitations, which means 7.73 heads/family, much under the UE lowest level and the average of 85 heads, ex. Austria 11 heads. In Romania 48% of the exploitations have up to 10 sheep; 25% between 11-50 and only 27% have over 51 heads.

Concerning the poultry farms, 41.2% have 25 heads, the average size is 25 heads/exploitation and 16% have 25-30 heads with an average of 32.5 heads/exploitation.

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*** Romanian agro-alimentary chain leading to UE joining, Bucharest 2003;
*** The Economist, no. 1848/2005;
Economic success (obtaining profit) of a swine farm is influenced by managerial factors that ensure performing standards in reproduction, by reducing service period and by achieving a calving interval between 152-154 days. Obtaining from each sow 2.37-2.40 deliveries/year during an exploitation period as long as possible (5-6 deliveries) contributes to the recovering of expenses on breeding stock until optimal age for reproduction.

Key words: reproduction efficiency, managerial factors, reference standard, use index, calving interval, and service period

INTRODUCTION

Sow reproduction plays a very important part in economic success (obtaining profit) of swine farms. In order to obtain a high profit per sow (18-20 fat hogs a year), it is important to diminish as much as possible the preparative period until insemination, prolonging as long as possible the period of exploitation (5-6 deliveries). It is only a performing management at the level of the farm that one can diminish non-producing periods, and females can be maintained productive for more years. In order to get maximum reproduction efficiency on a swine farm, each sow should reproduce with a certain frequency (2.3 deliveries/year) over an exploitation period as long as possible to recover expenses caused by their growth and testing until optimal reproductive age (185-200 days).

MATERIAL AND METHOD

When man undertakes nature’s responsibilities (artificial
insemination, zygote transfer) he should know the reproductive physiology of the animals he raises and develop some principles that allow him artificial insemination. Sows’ insemination function includes: production of sexual elements (ovocytes), fecundation, gestation, and delivery, which are hormonally regulated (2, 4).

Hypophysis, a gland that also regulates other functions of the organism, frees a hormone (FSM) that stimulates the growth of ovary follicles that “host” the ovocytes. After ovulation, on the ovary, instead of the follicle that has ovulated, the yellow body forms as a result of LH action (1).

RESULTS AND DISCUSSIONS

To obtain a maximum efficiency in reproduction on a swine farm it is necessary to know the main elements that compose sows’ reproduction management:

1. Knowing the reproductive function of sows, production of sexual elements, fecundation, gestation, parturition, and raising progeny.

2. Calving interval. The frequency of deliveries (the calving interval) influences significantly piglet production on a farm. The ideal would be that each sow performs 2.3 deliveries/year and exploitation period be as long as possible (5-6 deliveries). The calving interval comprises the period before mounting that should not exceed 8-10 days, gestation of 115 days, breastfeeding of 28-30 days, so that the calving interval is of 155 days. The main factors on which depends the calving interval are: length of interval from weaning to fecund mounting and conception rate (% of fecundity). Swine farms (on which sows’ reproduction is well-guided get gestations with 1.3-1.5 inseminations. When in order to get a gestation one needs 1.5-1.8 inseminations or more, the farmer should look for causes, which depend not only on the artificial insemination technique, but also on growing and exploiting technologies (3).

3. Proper identification of sows in heat. Establishing the proper moment for insemination is impossible if heat was not properly identified. The most certain sign of heat is the “immobility reflex”, females accepting to be mounted by other sows, thus manifesting its immobility to the boar (R.I.V.) and to man (R.I.O.). A number of studies show that observations to identify heat should start in the morning and be repeated at least two times a days so that the percentage of females in heat identified be over 92-97%.
4. **Insemination time.** After identifying heat properly, insemination time is another factor on which relies reproduction efficiency on swine farms. The most used system is with two insemination times: in the morning all sows are inseminated, while in the afternoon are inseminated sows in heat identified in the afternoon and sows inseminated in the morning.

5. **Nutrition and reproduction.** Nutrition has the highest importance on sows. The age of sexual maturity (puberty) appears is influenced by the nutritional level of the ratio. Foraged sows with a low-protein content reach puberty later (9-10 months) than those fed on balanced ratios (7-8 months) and a weight of 115-120 kg.

Loosing weight during breastfeeding also contributes to the increase of period before mounting (from 8-10 days to 35-40 days and a reproduction index of 2.3 deliveries/sow). During gestation, sows shall be fed in a restrictive way: during the first three months of gestation, 2.2-2.5 kg of mixed forage a day and per head, while during the last period of gestation with protein-vitamin-mineral balanced ratios as the conception product develops intensively during this period of time (Table 1). Both underfeeding and overfeeding influences embryo death rate that reaches in this species 25-30% (1, 2). Infested forage has a bad influence on gestation: moulds that act directly, and mycosis that produce intoxications or sub-toxic states.

<table>
<thead>
<tr>
<th>Age (days)</th>
<th>Length of conception product (mm)</th>
<th>Average weight of the conception product (g)</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>2-4</td>
<td>0.08-0.10</td>
</tr>
<tr>
<td>21</td>
<td>5-6</td>
<td>0.15-0.22</td>
</tr>
<tr>
<td>25</td>
<td>13-15</td>
<td>1.51-2.13</td>
</tr>
<tr>
<td>35</td>
<td>30-40</td>
<td>11.15-12.80</td>
</tr>
<tr>
<td>42</td>
<td>60-80</td>
<td>13.20-14.50</td>
</tr>
<tr>
<td>75</td>
<td>130-140</td>
<td>250.30-260.45</td>
</tr>
<tr>
<td>95</td>
<td>160-175</td>
<td>425.80-501.75</td>
</tr>
<tr>
<td>115</td>
<td>182-236</td>
<td>1255.73-1657.68</td>
</tr>
</tbody>
</table>

The wider use in agriculture of insecticides raises the problem of their effect on animals that feed on forage treated with this kind of
problems. They know cases of acute and chronic intoxications caused by digestive, respiratory, or skin absorption of the insecticide and by their storage in organs rich in lipids such as liver, super-kidney, nervous system, and that interfere with enzymatic processes in the organism. Are of particular interest insecticides of phosphoric esters, strong inhibitors of cholinesterase at the level of motor ways with the appearance of convulsive contractions in smooth and striated muscles, resulting in abortion of zygote, embryo, and foetus.

6. Macro- and microclimate factors. High temperature plays a very important role in reproduction. It is known that high temperature delays the appearance of sexual maturity, decreases gamete viability and has a negative influence on the development of embryos and foetuses, which was proved experimentally by fecundated ovule transplants into females under thermal stress or by the study of females imported from Europe to tropical countries.

In very hot countries, in most breeds of sows we can see a prolongation of oestrus cycles with a diminution of prolificity and underdeveloped products. Pregnant sows’ transport to other climate conditions or an environmental change within the same area (exploitation in the open for the whole period of the year) lead to a diminution of fertility because of the decrease of ovulation arte and to high embryo death rate. The use in exploitation on pasture of some hybrids that are remarkable for their rusticity and a high degree of adaptability makes that embryo loss rate depending on season be constant and 9.3-9.48 piglets be weaned per sow with good body development and high vigour.

Macro- and microclimate conditions have a very high influence on reproduction function of sows. If at present we know optimal values of microclimate ensuring the comfort necessary to express the biological potential of the species, reaching and maintaining these values, particularly in exploiting pastures during the whole year is sometimes pretty difficult.

Table 2 shows some indices of the management of reproduction on swine farms that can help in identifying weak points on the farm and that need a special attention to achieve an economical reproduction in maximum efficiency conditions by the use of a performing farm management.

We can see that the higher the calving interval the lower the use-index of the sow. To achieve a performing management we need to establish a reference standard for reproductive parameters in sows. Such a standard product is shown in Table 3.
Table 2. Managerial factors on which depend reproductive efficiency on swine farms

<table>
<thead>
<tr>
<th>Managerial factors</th>
<th>Very good</th>
<th>Good</th>
<th>Satisfactory</th>
<th>Poor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service period (days)</td>
<td>38-40</td>
<td>40-52</td>
<td>52-55</td>
<td>&gt; 55</td>
</tr>
<tr>
<td>Number of inseminations per gestation</td>
<td>1.3-1.5</td>
<td>1.5-1.8</td>
<td>1.8-2.0</td>
<td>&gt; 2</td>
</tr>
<tr>
<td>Animals in heat at the time of the 1&lt;sup&gt;st&lt;/sup&gt; cycle (%)</td>
<td>85-90</td>
<td>75-85</td>
<td>70-75</td>
<td>&lt; 70</td>
</tr>
<tr>
<td>Inseminated animals at the time of the 1&lt;sup&gt;st&lt;/sup&gt; cycle and diagnosed as pregnant at 17/35 days (%)</td>
<td>80-85</td>
<td>70-75</td>
<td>65-70</td>
<td>&lt; 65</td>
</tr>
<tr>
<td>Calving interval (days)</td>
<td>152-154</td>
<td>155-166</td>
<td>166-169</td>
<td>&gt; 170</td>
</tr>
<tr>
<td>Sows delivering at the age of 1 year (%)</td>
<td>30-33</td>
<td>25-30</td>
<td>20-25</td>
<td>&lt; 20</td>
</tr>
<tr>
<td>Use index of delivering sows/year</td>
<td>2.37-2.40</td>
<td>2.20-2.36</td>
<td>2.16-2.20</td>
<td>&lt; 2.15</td>
</tr>
</tbody>
</table>

Table 3. Reference standard for reproductive parameters in sows

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Very good</th>
<th>Good</th>
<th>Satisfactory</th>
<th>Poor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age of the 1&lt;sup&gt;st&lt;/sup&gt; mounting (months)</td>
<td>7-8</td>
<td>8-9</td>
<td>9-10</td>
<td>&gt; 10</td>
</tr>
<tr>
<td>Regulated heats (17±3 days)</td>
<td>8-10</td>
<td>10-15</td>
<td>15-20</td>
<td>&gt; 20</td>
</tr>
<tr>
<td>Abortions (1)</td>
<td>&lt; 1</td>
<td>1-2</td>
<td>2-3</td>
<td>&gt; 3</td>
</tr>
<tr>
<td>Piglets from a primiparous delivery</td>
<td>10-11</td>
<td>9.5-10</td>
<td>9-9.5</td>
<td>&lt; 9</td>
</tr>
<tr>
<td>Piglets from a delivery</td>
<td>11-12</td>
<td>10-11</td>
<td>9.5-10</td>
<td>&gt; 9.5</td>
</tr>
<tr>
<td>Piglets born dead (%)</td>
<td>&lt; 1</td>
<td>1-1.5</td>
<td>1.5-2</td>
<td>&gt; 2</td>
</tr>
</tbody>
</table>
CONCLUSIONS

In order to get maximum reproduction efficiency on a swine farm, each sow should reproduce 2.37-2.4 times a year during a period of exploitation as long as possible (5-6 deliveries) to recover occasional expenses with the growing of sows until reproduction age. Reaching these performances can be done only by observing dome managerial factors (service period, number of inseminations per gestation, number of animals I.A. and diagnosed pregnant after the 1st cycle of heats, calving interval) that ensure the achievement of reference standards for reproductive parameters in sows in special performing conditions on swine farms.

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TOURISM ACTIVITIES GENERATING JOBS IN THE RURAL AREA

I. PETROMAN*, SIMONA CONSTANTINESCU *, IOANA MILIN ANDA*, GABRIELA POPESCU*

Agriculture has been a critical element for rural area economy in many plain, hill, mountain, and Danube Delta areas, as it is the main economic activity. Rural development strategies should rely on a healthy agricultural sector; on the consolidation of agricultural exploitations, its profitability being able of generating activities related to agricultural production, tourism development, and agro-tourism.

Key words: rural area, agricultural sector, agro-tourism, rural tourism, and economic activities

INTRODUCTION

When analysing economic activity in the rural area we should pay a particular attention to the identification of such alternative activities that have a real chance for development and create new jobs that compensate the diminution of labour occupancy degree in agriculture. Romanian rural area keeps producing mainly agricultural products, and no sector can offer solutions for the economic problems of the rural area, up-stream and down-stream activities being mainly located in the urban area (1, 2).

Developing business in Romania reveals a great difference between the urban and rural areas; if we compare the two areas, the differences are noticeable: example, starting a business has a low rate in rural and poor areas entrepreneurial spirit is not developed yet. Improving the conditions for business in the rural area is a main condition for the generation of economic activities generating jobs in the rural area (1).

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RESULTS AND DISCUSSIONS

The most important contributor to economic activity and to social viability of the rural area for another considerable period of time is bi-ecologic agriculture on agro-tourism farms; it will employ a significant share of the population in the rural area even if the number of workers involved in the agricultural sector diminishes. Any strategy developed shall rely on the development of a healthy agricultural sector, on the consolidation of agricultural exploitations, that shall become profitable if the business environment is permissible, a profitability that shall generate new economic activities related to agriculture.

The commercial sector of agriculture shall have to invest and restructure, expanding bio-ecological crops diminishing the difference in competitiveness between Romania’s agriculture and agriculture in the European Union nations. It is necessary to bring into the rural area detail distribution networks for agricultural raw materials (seed, fertilizers, herbicides, medicine, forage, bio-stimulators, protein concentrates, machines and tools, spare parts, and fuels). Distribution networks for these raw materials are still rare in the rural area. Developing these services in the rural area should contribute to the creation of new jobs, as with the increase of the profitability degree of private family exploitations this kind of demand will increase in the rural area.

Another alternative activity to develop in the rural area is rural tourism and agro-tourism because of bio-diversity, of people’s hospitality, and of the customs and traditions that have become extinct in the urban area or that have never existed there. Romanian rural area is rich in wild landscapes, natural monuments, and historic sites located in the plain, hill, mountain, or Danube Delta areas, sites that have become tourism destinations through the development of new jobs in the rural area. In order to expand this activity generating new jobs we need to develop infrastructure, accommodation opportunities, and institutions that support this form of tourism or other forms such as the green tourism or eco-tourism in protected areas, in national parks, in reserves of the bio-sphere, and in moist areas, thus contributing to the diversification of rural economy. It is imperious that pensions in rural areas be included into an organized network of tourism and be licensed as supplying legal conditions for a certain tourism classification (number of daisies).
Processing raw materials is considered an activity generating profit to be developed in the rural area. We need to establish milk, meat, vegetables, and ecologic agricultural produce processing units to attract abundant and cheap labour force from the rural area. We should also expand fruit processing, manufacturing traditional alcohols from fruit, thus diminishing transportation costs for raw material and construction costs (land is cheaper to build on in the rural area than in the urban area).

Handicraft has been for a long time in the Romanian rural area and it has relied upon valorising of local resources such as hemp, osier, wool, wood, and clay. It is necessary to train young people in the rural area in this kind of activities as old handicraftsmen have become too old.

Forestry, by its nature a rural activity, shall contribute to the development of rural communities, of wood processing, of nursery development, of tree replanting, of the gathering and processing of forest fruits and medicinal plants, and of sylvo-tourism. Forestation process can be of equal benefit for environment and national economy, but it can also create jobs in the rural area, the forestry sector being an alternative for new sources of income.

Though the appearance of new activities in the rural area has expanded, it is still unlikely to create enough jobs in the rural areas that absorb the whole exceeding active population and diminish the number of active population still occupied in agriculture to 15%. Neither local investments nor the development of local business necessary for the creation of new jobs are enough to ensure income for the whole labour force freed from agriculture; this is why it is necessary to find other solutions outside the rural area, as shuttling service could still be an alternative for the rural area around large cities with growing economy and flourishing constructions, industry, and services.

**CONCLUSIONS**

When talking about tourism activities generating new jobs in the rural area, it is imperious to identify those activities that have a real chance of development and of creating jobs to compensate the diminution of the number of people occupied in agriculture. Agriculture has been a critical element for the health of economy in the rural area, in many plain, hill, mountain, and Danube Delta areas, representing the main economic activity. Rural development strategies shall have to rely on the existence and
development of a healthy agricultural sector, on the consolidation of agricultural exploitations, its profitability being able to create activities related to agricultural production.

Rural tourism, agro-tourism will continue to develop in the Romanian rural area together with agricultural raw material processing and the development of handicraft activities. Forestry, due to its nature, is a rural activity that can also be an important alternative as an income source from the bonuses paid by the E.U. from the selling of timber and from developing sylv-o-tourism.

It is however unlikely that the appearance of new economic activities in the rural area create jobs in the rural areas enough to absorb the whole exceeding active population, shuttling servicing being still an alternative particularly in rural areas around large cities with developing economy (industry and services).

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ADULT SHEEP’S CARCASS: CLASSIFICATION METHODS

METODE DE CLASIFICARE
A CARCASELOR DE OVINE ADULTE

CORNELIA PETROMAN*, MANUELA DORA ORBOI*, IULIANA CREȚ*

Objective assessment of the carcass’s conformation through the EUROP system points out the fact that the Transylvanian Merinos sheep under study ranges in classes U and R (12 carcasses) and O and P (11 carcasses), with no carcass in the superior range, a phenomenon that should draw the raisers’ attention who will have to change their genetics as carcass payment will be done through the objective method of the graduation (EUROP) depending on the percentage of lean meat in the carcass. We can see that by assessing fattening state lean carcasses and convex to extremely convex muscle profiles and with an exceptional development of the muscles have the highest share.

Key words: sheep, Europ assessment, meat:bones ratio

INTRODUCTION

Assessing carcass quality and sheep meat can be done both on the living animal on the ground of the correlation between body weight, fattening state, and body conformation, and on carcass quality and meat quality, through subjective or objective methods. As subjective methods consist in examining with the help of perceptive organs some features that are granted marks or scores, this can affect positively or negatively the integrity and commercial value of the carcass, we have to switch to the objective assessment of the carcasses through the analysis of some features (carcass mass, carcass size, component parts after cutting, tissue structure and chemical composition of the carcass) that classify carcasses after their commercial value. Classifying sheep carcasses through the objective method of the graduations (1) is done after conformation into 6 classes S, E, U, R, O, P and after fattening state into 5 classes (very lean, lean, medium, fat, and very fat). To be classified into the S class, the carcass should have no

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defect in its essential portions (joint, dorsal and lumbar muscles, shoulder). Class E (excellent) carcasses should be very muscular and have little fat, those in class U should be very muscular and muscles should be covered by a uniform layer of fat (1-2 mm). Class R includes muscular carcasses covered by a uniform layer of fat but 3-4 mm thick, while carcasses ranged in class O have medium-development muscles and the fat layer is 5-6 mm thick. The lowest quality carcasses are ranged within the P class, with poorly developed muscles and covered by a thick layer of fat under the form of deposits in handling areas. Classes after fattening state in adult sheep are as follows (2): very lean with little or inexistent covering fat, with few fat traces on the kidneys and ribs; lean with a low share of covering fat and with visible muscles. Kidneys are wholly covered by fat in a thin layer; the average of covering fat on all the muscles except for the joints and the shoulder, with few deposits of fat within the thorax and with pregnant deposits at the basis if the tail and on the kidneys; fat. The muscles are covered by fat but partially visible on the joint and on the shoulder, with kidneys wrapped in fat, and with fat deposits between the ribs. Covering fat layer is thick, but thinner on the limbs; very fat. The carcass is entirely covered by a thick layer of fat and inside the thorax we can see thick fat deposits that cover the kidneys. The inter-rib muscles are infiltrated by fat, and between the ribs one can see fat deposits.

RESULTS AND DISCUSSIONS

We slaughtered in a licensed slaughtering house a number of 100 sheep of which we have chosen randomly 30 carcasses of the Transylvanian Merinos breed that were later assessed through the objective system of graduation of carcasses Europ (Figure 1) and of fattening state. In order to be classified after the conformation into the superior conformation class (S) carcasses should not have any defect in its essential portions (joint, dorsal and lumbar muscles, and shoulder). In analysed carcasses no carcass ranged within this category. In order to range within class E, carcasses of excellent conformation should not have any defects in their essential portions (joint, dorsal and lumbar muscles, and shoulder), 7 carcasses ranging within this class. When the carcasses have no homogeneous character at the level of the three essential portions, the class is defined by the portion fit for two of the three essential portions to range within classes U, R, O, P. among analysed carcasses, 14 ranged within class U, 8 ranged within class R, 6 ranged
within class O, and 5 ranged within class P (Table 1).

![Figure 1. Europ system of carcass graduation](image)

<table>
<thead>
<tr>
<th>Objective assessment class</th>
<th>S</th>
<th>E</th>
<th>U</th>
<th>R</th>
<th>O</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of carcasses analysed and classified</td>
<td>-</td>
<td>7</td>
<td>4</td>
<td>8</td>
<td>6</td>
<td>5</td>
</tr>
</tbody>
</table>

We can conclude that in adult sheep carcasses classified after conformation through the SEUROP method the highest share is that of classes U and R (12 carcasses), O and P (11 carcasses), a phenomenon that should draw the attention of specialists in genetics and sheep improvement, who should urge raisers to improve the quality of their heterogeneous genetic material (Transylvanian Merinos) through reproduction intensification, artificial insemination, and embryo transfer. Otherwise sheep raisers won’t be able to market their products because payment shall
be done depending on meat share in the carcass and not after live weight, as they do at present. Adult sheep carcasses analysed after their fattening state ranged within the following classes (Table 2).

**Table 2.**

<table>
<thead>
<tr>
<th>Fattening class</th>
<th>Very lean</th>
<th>Lean</th>
<th>Medium</th>
<th>Fat</th>
<th>Very fat</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of carcasses</td>
<td>1</td>
<td>10</td>
<td>15</td>
<td>2</td>
<td>2</td>
</tr>
</tbody>
</table>

Most of the carcasses range within lean and medium classes, one carcass being very lean, two fat, and two very fat. The share of tissues after dissecting two carcasses show that for an average slaughtering weight of 38.4 kg it was of 58.7% meat, 21.9% fat, and 18.5% bones (Table 3).

**Table 3.**

<table>
<thead>
<tr>
<th>Live weight (kg)</th>
<th>Type of tissue (%)</th>
<th>Meat/bone ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Muscular</td>
<td>Adipose</td>
</tr>
<tr>
<td>38.4</td>
<td>58.7</td>
<td>21.9</td>
</tr>
</tbody>
</table>

**CONCLUSIONS**

Carcass classified after confirmation, through the EUROP method range within classes U and R (12 carcasses) and O and P (11 carcasses). No carcass ranges within the superior class, a phenomenon that should draw the attention of sheep breeders, who shall improve their genetic material that will be assessed after the share of lean meat in the carcass. Adult sheep carcasses analysed after the fattening state are within the lean and medium classes and the share of tissues after dissection is 58.7% meat, 21.9% fat, and 18.5% bones, the meat:bones ratio being 1:3.17.

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ON THE INFLUENCE OF AGE AND REPRODUCTION SEASON ON FECUNDITY AND PROLIFICITY IN F1 HALF-BREED SOWS (LARGE WHITE X LANDRACE)

INFLUENȚĂ VÂRSTEI ȘI SEZONULUI DE REPRODUCȚIE ASUPRA FECUNDITĂȚII ȘI PROLIFICITĂȚII SCROAFELOR METISE F1 (LARGE WHITE X LANDRACE)

CORNELIA PETROMAN*, I. PETROMAN*, M. MATIUȚI**

Sow fecundity records increased values compared to sow age, oscillating between 80.8-93.6% in the case of natural mounting and 79.4-92.6% in the case of artificial mounting. The prolificacy percentage is influenced by sow age and also by the mounting system (natural or artificial), with differences of 0.15-1.3 piglets per female. Piglet viability is over 93.0%, no matter the reproduction system and sow age or season of mounting.

Key words: sows, reproduction system, fecundity, and prolificacy

INTRODUCTION

Ensuring foodstuffs and particularly animal ones necessary in people’s food constitutes one of the basic concerns of animal specialists and breeders, as they contribute to the raising of the living standard of the population and to maintaining health. Numerous investigations and experiments followed the valorising native features of some animal species and even their improvement in order to increase productive performances.

Researchers and animal breeders focused on more prolific species, on species with a high growth rate that can be raised in different exploitation systems. Among them, swine, that has an important share in our country, with specific biological features in meat production. But, in order to obtain larger amounts of pork, an important step together with native features is organisation and normal development of reproduction activity aiming at improving fecundity and prolificacy in sows.

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MATERIAL AND METHOD

Research was carried out at the S.C. COMTIM GROUP S.R.L. Pădureni, on sows aged differently (primiparous, secundiparous, and multiparous), mounted artificially. During the experiment we recorded the number of mountings, the number of females diagnosed as 90-day pregnant for the calculus of fecundity percentage and the number of piglets born alive and born dead to assess viability. Data were statistically processed depending on sow age and depending on the reproduction system.

RESULTS AND DISCUSSION

We followed the fecundity percentage in a number of 300 heads of which 162 females were mounted naturally and 138 were mounted artificially, monitoring also the influence of sow age (primiparous, secundiparous, and multiparous) on the percentage of fecundity (Table 1 and Figure 1). We can see that fecundity has higher values no matter the season, except for the primipara in which fecundity percentage is lower.

Within the reproduction system, naturally mounted sows become pregnant in a larger number, they do not replicate heat, compared to artificially mounted ones, but between the two systems there are no high differences (80.8-93.6% natural mounting, 79.4-90.6% artificial mounting), the highest differences being as a rule in primipara.

<table>
<thead>
<tr>
<th>Sow category</th>
<th>Naturally mounted sows</th>
<th>Artificially mounted sows</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N=162 heads</td>
<td>N=138 heads</td>
</tr>
<tr>
<td></td>
<td>Mounted females (heads)</td>
<td>Pregnant sows (heads)</td>
</tr>
<tr>
<td>Primiparous sows</td>
<td>52</td>
<td>42</td>
</tr>
<tr>
<td>Secundiparous sows</td>
<td>47</td>
<td>43</td>
</tr>
<tr>
<td>Multiparous sows</td>
<td>63</td>
<td>59</td>
</tr>
<tr>
<td>Total</td>
<td>162</td>
<td>144</td>
</tr>
</tbody>
</table>

Within the natural mounting system depending on sow age there is a supplementary difference of the fecundity percentage in secundipara compared to primipara of 10.7%, and in multipara of 12.8%.
In females artificially mounted the differences were 10.4% higher in secundipara and 13.2% in multipara. No matter the reproduction system, natural or artificial mounting, the fecundity percentage was 2.1-3.8% superior in multipara females compared to secundipara.

Table 2 and Figure 2 show that sow prolificacy varies very little depending on age: 9.8-10.2 in primipara and 11.3-11.4 in multipara, and the mounting system does not significantly influence this index. In naturally mounted sows, no matter the age, 10.1 piglets of 10.94 piglets per birth were alive, i.e. 92.3% viability and 7.7% were dead or died soon after delivery, being non-viable.

Artificially mounted sows yielded a viability percentage 2.4% lower (90.9%), and death rate was 9.1%. The lowest number of piglets was in
primipara, no matter the reproduction system, and the loss average upon delivery is 0.9-1.1 heads as non-viable or weighing less than 0.9 kg and did not survive, so that in this sow category there is a lower survival rate of 88.8-91.2%. These aspects are shown in Figure 2.

![Figure 2. Sow prolificacy depending on age and reproduction system](image)

CONCLUSIONS

Naturally mounted females recorded a fecundity percentage of 88.9%, and artificially mounted ones 88.4%, closed values that increased with sow age. Fecundity percentage oscillated between 80.8-93.6% in natural mounting, and 79.4-92.6% in artificial mounting. Primiparous females, no matter the reproduction system, recorded the lowest fecundity percentage. Prolificacy percentage varied very little depending on sow age, i.e. from 9.8-10.2% in primipara to 11.3-11.4% in multipara, but the highest viability rate is in naturally mounted secundipara (93.7%) and in artificially mounted multipara (92.0%). The highest prolificacy is in primipara, in which survival rate, no matter the reproduction system, is between 88.8-91.2%.

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4. STOICA ANGELA et al., 1998, Rezultate practice privind valorile unor indici de reproducţie la scroafe, Ed. Mirton, Timişoara;
RESEARCHES CONCERNING THE ECONOMIC IMPACT OF FEEDING IMPROVEMENT IN LAYERS RAISING

CERCETĂRI PRIVIND IMPACTUL ECONOMIC AL ÎMBUNĂTĂȚIRII HRĂNIRII ÎN CREȘTEREA GĂNILOR OUĂTOARE

AGATHA POPESCU*, DOINA VALENTINA GROSSU**, CARMEN CIURESCU**, RODICA DIANA CRISTEA**

The economical effects of using 21-5 compound food formulation supplemented with 2 % Prolinbor (0.1 %) – a protein concentrated food enhanced with linolenic acid and boron were evaluated on a sample of 500 layers divided into 2 experimental groups as follows: VM – Control – classical feeding and VE – feeding based on 21-5 CF enhanced with 2 % Prolinbor. In case of VE, we noticed an increased laying percentage by 1 %, an increased linolenic acid content by 1.82 g/100 fat, an increased feed conversion and feeding cost by 4.2 %. An increased price by 11 % due to product quality resulted to a higher profit per egg by ROL 479 and a higher profit rate by 15.51 %.

Key words: economic impact, feeding improvement, Prolinbor, layers raising

INTRODUCTION

The increased consumer need for high quality food of animal origin has imposed to nutritionists to look for new alternatives in layers feeding. Due to high content in cholesterol of the egg, new quality standards concerning cholesterol level structure and profile of fat acids have appeared. In this purpose, a new product called Prolinbor (0.1 % type) used as a food additive was used as a component of 21-5 compound food recipe for layers in order to cover the EU egg quality requirements. Prolinbor has a high content in boron and linolenic acid and assures both ration optimization and a low cholesterol level in hen egg.

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MATERIAL AND METHOD

The study was running within the pilot farm of the National Institute for Biology and Animal Nutrition, using 500 layers divided into 2 equal groups: VM – control-layers fed with 21-5 CF without Prolinbor and VE – layers fed with 21-5 CF including 2 % Prolinbor. The content of the used rations is given in table 1.

Table 1

Ration structures for layers by experimental variants (%)

<table>
<thead>
<tr>
<th>Component</th>
<th>VM – Control without Prolinbor</th>
<th>VE – experiments with Prolinbor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maize</td>
<td>29.32</td>
<td>27.32</td>
</tr>
<tr>
<td>Rice</td>
<td>15.00</td>
<td>15.00</td>
</tr>
<tr>
<td>Decorticated and roasted barley</td>
<td>0.03</td>
<td>0.03</td>
</tr>
<tr>
<td>Sunflower cake</td>
<td>5.00</td>
<td>5.00</td>
</tr>
<tr>
<td>Full Fat Soy Bean</td>
<td>9.00</td>
<td>9.00</td>
</tr>
<tr>
<td>Brewer’s grains</td>
<td>30.00</td>
<td>30.00</td>
</tr>
<tr>
<td>Bone Powder</td>
<td>1.30</td>
<td>1.30</td>
</tr>
<tr>
<td>Chalk forage</td>
<td>9.00</td>
<td>9.00</td>
</tr>
<tr>
<td>Salt</td>
<td>0.30</td>
<td>0.30</td>
</tr>
<tr>
<td>A6 Zoofort</td>
<td>1.00</td>
<td>1.00</td>
</tr>
<tr>
<td>Premixcoline</td>
<td>0.05</td>
<td>0.05</td>
</tr>
<tr>
<td>Prolinbor</td>
<td>-</td>
<td>2</td>
</tr>
<tr>
<td>TOTAL</td>
<td>100.00</td>
<td>100.00</td>
</tr>
</tbody>
</table>

During the experiments, the following parameters were studied: layers weight, daily feed consumption, food conversion, laying intensity, egg quality by means of its content in multi non saturated fat acids, feeding cost per kg of compound food, layers and day and total raising costs per layer, egg cost and profit rate.

RESULTS AND DISCUSSIONS

Technological parameters in layers raising for consumption eggs. The layers fed with 21-5 including 2 % Prolinbor have registered an identical live weight with the one performed by the control layers at the end
of the experimental period, but they consumed 1.58 g more food every day, resulting a 0.09 g higher consumption per egg gramme, but the laying intensity has increased by 1 % (Table 2).

Table 2

Technological parameters in layers raising for consumption eggs

<table>
<thead>
<tr>
<th>Parameter</th>
<th>M.U.</th>
<th>VM</th>
<th>VE</th>
<th>VE-VM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Layer live weight</td>
<td>g</td>
<td>g</td>
<td>g</td>
<td>g</td>
</tr>
<tr>
<td>- At the beginning</td>
<td></td>
<td>1,792.20</td>
<td>1,792.20</td>
<td>-</td>
</tr>
<tr>
<td>- At the end</td>
<td></td>
<td>1,972.59</td>
<td>1,970.20</td>
<td>-</td>
</tr>
<tr>
<td>Daily food consumption</td>
<td>g/layer/day</td>
<td>124.75</td>
<td>126.33</td>
<td>+1.58</td>
</tr>
<tr>
<td>Food conversion</td>
<td>g food/g egg</td>
<td>2.26</td>
<td>2.35</td>
<td>+0.09</td>
</tr>
<tr>
<td>Laying intensity</td>
<td>%</td>
<td>92.98</td>
<td>93.98</td>
<td>+</td>
</tr>
</tbody>
</table>

Egg quality is higher due to improved structured of fat acids, in favor of the non saturated ones - an increased content in linolenic acid by 1.82 g/100 g fat (Table 3).

Table 3

Egg quality and its content in fat acids

<table>
<thead>
<tr>
<th></th>
<th>In White and Yolk</th>
<th>VE</th>
<th>VE-VM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oleic acid</td>
<td>50.12</td>
<td>50.12</td>
<td>-</td>
</tr>
<tr>
<td>Linolenic acid</td>
<td>8.68</td>
<td>10.50</td>
<td>+1.82</td>
</tr>
</tbody>
</table>

Economic impact of using Prolinbor in layers feeding with 21-5 CF

- During the whole test period, VE feeding costs registered ROL 49,796,795, by 4.20 % more than in case of VM. This was due to the fact that the layers fed with 21-05 CF with Prolinbor have performed a higher food consumption: 249.48 g CF and 0.40 ml Prolinbor/day. As a result, daily feeding cost has increased by ROL 96 (Table 4).
Table 4

<table>
<thead>
<tr>
<th>Parameter</th>
<th>M.U.</th>
<th>VM</th>
<th>VE</th>
<th>VE-VM</th>
</tr>
</thead>
<tbody>
<tr>
<td>LayeRs in macrotest</td>
<td>Heads</td>
<td>250</td>
<td>250</td>
<td>-</td>
</tr>
<tr>
<td>Daily food consumption</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-21-5 CF</td>
<td>g/head/day</td>
<td>249.48</td>
<td>249.48</td>
<td>-</td>
</tr>
<tr>
<td>-Prolinbor</td>
<td>ml/head/day</td>
<td>-</td>
<td>0.40</td>
<td>+0.40</td>
</tr>
<tr>
<td>Total feed consumption</td>
<td>Kg</td>
<td>5,239.08</td>
<td>5,239.08</td>
<td>-</td>
</tr>
<tr>
<td>-21-5 CF</td>
<td>L</td>
<td>0</td>
<td>8.38</td>
<td>+8.38</td>
</tr>
<tr>
<td>-Prolinbor</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Food cost:</td>
<td>ROL/kg</td>
<td>9,120.99</td>
<td>9,120.99</td>
<td>-</td>
</tr>
<tr>
<td>-21-5 CF</td>
<td>ROL/l</td>
<td>-</td>
<td>240,000</td>
<td>+240,000</td>
</tr>
<tr>
<td>Total daily feeding costs</td>
<td>ROL/day</td>
<td>47,785,595</td>
<td>49,796,795</td>
<td>+2,011,200</td>
</tr>
</tbody>
</table>

The total costs related to the experiments in macrotest recorded ROL 120,030,000 in case of VE, being 0.98 % higher than in case of VM. Cost structure was following one: 76.86 % materials, 11.93 % labor, 2.08 % other direct costs, 90.90 % direct costs and the remaining 9.10 % indirect costs (Table 5).

- **Incomes** obtained from VE layers eggs registered thou ROL 177,624, being by 13.70 % higher than the ones resulted from VM layers. This was due to the additional egg production by 420 pieces and higher egg quality having a positive influence on egg price which has been by ROL 500 higher (Table 6).
**Table 5**

<table>
<thead>
<tr>
<th>Cost item</th>
<th>VM</th>
<th>%</th>
<th>VE</th>
<th>%</th>
<th>VE-VM</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Thou ROL</td>
<td></td>
<td>Thou ROL</td>
<td></td>
<td>Thou ROL</td>
</tr>
<tr>
<td>Materials cost</td>
<td>90,286</td>
<td>76.57</td>
<td>92,297</td>
<td>76.89</td>
<td>+2,011</td>
</tr>
<tr>
<td>Labor cost</td>
<td>14,321</td>
<td>12.14</td>
<td>14,321</td>
<td>11.93</td>
<td>-</td>
</tr>
<tr>
<td>Other direct costs</td>
<td>2,500</td>
<td>2.14</td>
<td>2,500</td>
<td>2.12</td>
<td>-</td>
</tr>
<tr>
<td>Direct costs</td>
<td>107,107</td>
<td>90.83</td>
<td>109,118</td>
<td>90.90</td>
<td>+2,011</td>
</tr>
<tr>
<td>Indirect costs</td>
<td>10,806</td>
<td>9.17</td>
<td>10,912</td>
<td>9.10</td>
<td>+106</td>
</tr>
<tr>
<td>Total costs</td>
<td>117,913</td>
<td>100.00</td>
<td>120,030</td>
<td>100.00</td>
<td>+2,117</td>
</tr>
</tbody>
</table>

**Table 6**

<table>
<thead>
<tr>
<th>Egg production</th>
<th>M.U.</th>
<th>VM</th>
<th>VE</th>
<th>VE-VM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Egg production</td>
<td>Pieces</td>
<td>39,052</td>
<td>39,472</td>
<td>+420</td>
</tr>
<tr>
<td>Egg quality</td>
<td></td>
<td>Normal</td>
<td>Superior</td>
<td>Low cholesterol content and more non saturated fat acids</td>
</tr>
<tr>
<td>Egg price</td>
<td>ROL/egg</td>
<td>4,000</td>
<td>4,500</td>
<td>+500</td>
</tr>
<tr>
<td>Incomes</td>
<td>Thou ROL</td>
<td>156,208</td>
<td>177,624</td>
<td>+21,416</td>
</tr>
</tbody>
</table>

- **The financial results** show an increased economic efficiency in case of layers fed with 21-5 CF including Prolinbor. Total profit was thou ROL 57,594, by thou ROL 19,299 higher than in case of VM. The profit per egg was ROL 1,459.11 in case of VE and ROL 980.61 in use of VM (Table 7).

**CONCLUSIONS**

1. The use of 2 % Prolinbor within 21-5 CF assures an increased laying rate by 1 %, an increased feed consumption by 1.59 g/head/day and food conversion by 0.09 g/food/egg.
Table 7

<table>
<thead>
<tr>
<th>Profit and profit rate</th>
<th>M.U.</th>
<th>VM</th>
<th>VE</th>
<th>VE-VM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Incomes</td>
<td>Thou ROL</td>
<td>156,208</td>
<td>177,624</td>
<td>+21,416</td>
</tr>
<tr>
<td>Costs</td>
<td>Thou ROL</td>
<td>117,913</td>
<td>120,030</td>
<td>+2,117</td>
</tr>
<tr>
<td>Total Profit</td>
<td>Thou ROL</td>
<td>38,295</td>
<td>57,594</td>
<td>+19,299</td>
</tr>
<tr>
<td>Profit/Layer</td>
<td>ROL/layer</td>
<td>153,180</td>
<td>230,376</td>
<td>+77,196</td>
</tr>
<tr>
<td>Profit/egg</td>
<td>Rol/egg</td>
<td>980.61</td>
<td>1,459.11</td>
<td>+478.50</td>
</tr>
<tr>
<td>Profit rate</td>
<td>%</td>
<td>32.47</td>
<td>49.98</td>
<td>+15.51</td>
</tr>
</tbody>
</table>

2. Egg quality is higher due to the new structure of fat acids in favor of the non saturated ones. The eggs contain 1.82 g more linolenic acid.

3. Feeding cost per layer increases by ROL 96 (4.2 %) per layer and day and total raising costs increase by 17.95 % in case of the layers fed with 21-5 CF including Prolinbor (0.1 % type).

4. The high egg quality has a deep influence on egg price then resulting a profit gain of ROL 478.50 (48.79 %) and an additional profit rate of 15.51 %.

5. The use of 2 % Prolinbor within 21-5 CF assures increased performances in layers raising for consumption eggs.

BIBLIOGRAPHY


At present the operation of floss removing is manually done in Romania. The study aimed to evaluate the economic effects of the use of MCS-20 removing floss machine comparatively to the manual operation. The study was carried out in June 2003 within Sericarom Joint Venture Company, dealing with silk worms’ rearing. Two experimental variants were organized as follows: V1 – mechanized floss removing using MCS-20 and VM (control) – manual floss removing. The following economic indicators were comparatively studied: cocoons processing costs, incomes coming from delivered products – floss removed silk cocoons and floss, cost per kg silk cocoons, profit and profit rate. The estimates are determined by removing procedure and cocoons quality: 1st quality – normal cocoons and 2nd quality – double cocoons and cocoons with other defaults. The modernization of infrastructure in sericulture by using the removing floss machine assures a 20 time higher productivity, by 50 % lower labor costs, 10.2 times higher total costs, 19.28 times higher incomes and 14.35 % profit rate. As a conclusion, the manual floss removing procedure is not justified any more from an economic point of view and the use of MCS-20 removing floss machine is the only alternative to increase economic efficiency and profitableness in sericiculture.

Key words: economic impact, mechanization, removing floss machine, silk cocoons, sericulture

INTRODUCTION

Sericulture is an economic field of agriculture were works are mainly manually done in our country. The removal of floss from the silk
cocoons is a compulsory operation preceding the further cocoons processing in the textile industry.

At present, in our country the floss removal is manually done, involving high labor costs, a low productivity and financial results.

In the countries such as Japan, China and Chorea where sericiculture is a well developed economic sector, the floss is a mechanized operation.

Sericarom Joint Venture Company has designed, constructed and tested the MCS-20 experimental model of a floss removing machine.

The floss capacity of this machine is 20 kg cocoons per hour, assuring a 20 times higher productivity, a reduced labor cost by 50 % as well as a reduced production cost per kilogram of removed silk cocoons.

This study aimed to evaluate the economic impact of the use of MCA-20 floss removing machine comparatively to the manual operation.

MATERIAL AND METHOD

The experimental variants were organized as follows: V1 – mechanized floss removing using MCS-20 experimental model and VM (control) – traditional manual floss removal.

The new materials – silk cocoons were produced both by Sericarom Joint Venture Company and other private producers. The share of silk cocoons by quality was 75 % normal cocoons (1st quality) and 25 % doubled cocoons with other defaults (2nd quality).

The cocoons purchasing price was Euro 2.22 per kg for the 1st quality and Euro 1.11 per kg for the 2nd quality.

The following aspects were taken into consideration:
- the monthly floss removing capacity: V1-3,360 kg and VM-168 kg floss removable cocoons;
- working duration: 8 hours/day and 21 days per month;
- labor force: 1 worker for MSC-20 and 2 workers for VM;
- workers’ salary: Euro 108/month and Euro 0.64 per hour;
- the additional 35.5 % gains to workers’salary according to the legislation in force;
- the purchasing price of MCS-20: Euro 1,416;
- 10 years the length of use for the floss removing machine.
The following cost item were estimated: cost of raw materials, in close relationship to the amount of silk cocoons and their sale price, labor cost, electricity cost, depreciation cost, repairs, indirect cost (10%).

Incomes were determined by income source: floss removed cocoons and floss, by cocoons quality, taking into account the marketable amount of silk cocoons and the corresponding sale price by quality as follows: Euro 2.5 per kg of 1st quality floss removed cocoons and Euro 1.39 per kg of 2nd quality floss removed cocoons. The financial results were separately determined by flow removing procedure and cocoons quality.

RESULTS AND DISCUSSIONS

The costs of the mechanized floss removal recorded Euro 6,907, 10.2 times more than in case of VM – manual operation. In case of V1-mechanised operation, cost structure was the following one: 96.4 % raw materials, 2.4 % labor, 0.4 electricity, 0.6 % depreciation, 0.2 % other costs, while in case of VM was 49.6 % raw materials, 50.4 % labor (Table 1).

Table 1

| Monthly costs related to mechanized floss removing compared to manual procedure |
|---------------------------------|-----------------|-----------------|-----------------|
|                                 | M.U. V1 Mechanized | M Manual | V1-M          |
| Fresh silk cocoons with floss removed | kg              |       |               |
| -1st quality                    | 3,360            | 168    | +3,192        |
| -2nd quality                    | 2,540            | 126    | +2,394        |
|                                 | 840              | 42     | +798          |
| Raw materials costs             | Euro             | 6,664  | +6,331        |
| Labor costs                     | Euro             | 169    | -170          |
| Electricity costs               | Euro             | 29     | +29           |
| Depreciation costs              | Euro             | 41     | +41           |
| Repairs costs                   | Euro             | 4      | +4            |
| Total costs related to floss removing | Euro         | 6,907  | +6,235        |
| Cost per kg silk cocoons, floss removed | Euro/kg      | 2,05   | -1,95        |
The production cost per kg of floss removed cocoons is Euro 2.05 in case of V1 and Euro 4.00 in case of VM.

The incomes coming from marketable floss removed cocoons and floss registered Euro 7,900 in case of V1, 19.29 times more than in case of VM (Table 2).

**Table 2**

*Monthly Incomes coming from silk cocoons with floss removed and sold floss*

<table>
<thead>
<tr>
<th></th>
<th>M.U.</th>
<th>V1 Mechanized</th>
<th>M Manual</th>
<th>V1-M</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marketable silk cocoons, floss removed</td>
<td>kg</td>
<td>3,100</td>
<td>166</td>
<td>+2,934</td>
</tr>
<tr>
<td>-1&lt;sup&gt;st&lt;/sup&gt; quality</td>
<td></td>
<td>2,344</td>
<td>125</td>
<td>+2,219</td>
</tr>
<tr>
<td>-2&lt;sup&gt;nd&lt;/sup&gt; quality</td>
<td></td>
<td>756</td>
<td>41</td>
<td>+715</td>
</tr>
<tr>
<td>Output</td>
<td>%</td>
<td>93</td>
<td>99</td>
<td>-6</td>
</tr>
<tr>
<td>-1&lt;sup&gt;st&lt;/sup&gt; quality</td>
<td></td>
<td>90</td>
<td>98</td>
<td>-8</td>
</tr>
<tr>
<td>-2&lt;sup&gt;nd&lt;/sup&gt; quality</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cocoons price</td>
<td>Euro/kg</td>
<td>2.5</td>
<td>2.5</td>
<td>-</td>
</tr>
<tr>
<td>-1&lt;sup&gt;st&lt;/sup&gt; quality</td>
<td></td>
<td>1.39</td>
<td>1.39</td>
<td>-</td>
</tr>
<tr>
<td>-2&lt;sup&gt;nd&lt;/sup&gt; quality</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Incomes from silk cocoons</td>
<td>Euro</td>
<td>6,911</td>
<td>370</td>
<td>6,541</td>
</tr>
<tr>
<td>-1&lt;sup&gt;st&lt;/sup&gt; quality</td>
<td></td>
<td>5,860</td>
<td>313</td>
<td>5,547</td>
</tr>
<tr>
<td>-2&lt;sup&gt;nd&lt;/sup&gt; quality</td>
<td></td>
<td>1,051</td>
<td>57</td>
<td>994</td>
</tr>
<tr>
<td>Marketable floss</td>
<td>Kg</td>
<td>89.04</td>
<td>3.61</td>
<td>+85.43</td>
</tr>
<tr>
<td>-from 1&lt;sup&gt;st&lt;/sup&gt; quality</td>
<td></td>
<td>70.56</td>
<td>2.77</td>
<td>+67.79</td>
</tr>
<tr>
<td>-from 2&lt;sup&gt;nd&lt;/sup&gt; quality</td>
<td></td>
<td>18.48</td>
<td>0.84</td>
<td>+17.64</td>
</tr>
<tr>
<td>Floss price</td>
<td>Euro/kg</td>
<td>11.11</td>
<td>11.11</td>
<td>-</td>
</tr>
<tr>
<td>Incomes from floss</td>
<td>Euro</td>
<td>989</td>
<td>40</td>
<td>+949</td>
</tr>
<tr>
<td>-from 1&lt;sup&gt;st&lt;/sup&gt; quality</td>
<td></td>
<td>784</td>
<td>31</td>
<td>+753</td>
</tr>
<tr>
<td>-from 2&lt;sup&gt;nd&lt;/sup&gt; quality</td>
<td></td>
<td>205</td>
<td>9</td>
<td>+196</td>
</tr>
<tr>
<td>Total incomes from sold cocoons and floss</td>
<td>Euro</td>
<td>7,900</td>
<td>410</td>
<td>+7,490</td>
</tr>
<tr>
<td>-from 1&lt;sup&gt;st&lt;/sup&gt; quality</td>
<td></td>
<td>6,644</td>
<td>344</td>
<td>+6,300</td>
</tr>
<tr>
<td>-from 2&lt;sup&gt;nd&lt;/sup&gt; quality</td>
<td></td>
<td>1,256</td>
<td>66</td>
<td>+1,190</td>
</tr>
</tbody>
</table>
The income level has been deeply influenced by the following determinants:

- The amount of marketable floss removed cocoons: 3,100 kg for V1, 18.67 times higher than in case of VM – just 166 kg;
- Sale price was by 80% higher for the cocoons of 1st quality.

In case of the manual procedure, just Euro 410 income was recorded, being 20 times less than in case of using MCS-20.

The weight of incomes coming from marketed floss removed cocoons was 87.47% in case of V1 and 90.20% in case of VM.

The amount of marketable floss was 89.04 kg in case of V1 and 3.61 kg in case of VM, this difference is a result of the higher production capacity of MCS-20.

The incomes coming from marketed floss were Euro 989 in case of V1 and Euro 40 in case of VM, being deeply influenced by the amount of marketed floss and its sale price (Euro 11.11/kg).

Cocoons’ quality has a deep impact on income level. So, the cocoons of 1st quality contribute by 84.10% to income level in case of V1 and by 83.81% in case of VM.

The **financial results** were different according to the procedure used to remove floss (Table 3). In case of V1, Euro 1,012 profit was recorded.

**Table 3**

<table>
<thead>
<tr>
<th>Monthly financial results from sold silk cocoons with floss removed and floss</th>
<th>M.U.</th>
<th>V1 Mechanized</th>
<th>M Manual</th>
<th>V1-M</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total incomes</td>
<td>Euro</td>
<td>7,900</td>
<td>410</td>
<td>7,490</td>
</tr>
<tr>
<td>Total costs</td>
<td>Euro</td>
<td>6,907</td>
<td>672</td>
<td>+6,235</td>
</tr>
<tr>
<td>Financial results:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- from 1st quality cocoons</td>
<td>Euro</td>
<td>1,012</td>
<td>-262</td>
<td>+750</td>
</tr>
<tr>
<td>- from 2nd quality cocoons</td>
<td></td>
<td>1,478</td>
<td>-160</td>
<td>+1318</td>
</tr>
<tr>
<td>Profitability rate</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- from 1st quality cocoons</td>
<td>%</td>
<td>+14.35</td>
<td>-39.04</td>
<td>+53.39</td>
</tr>
<tr>
<td>- from 2nd quality cocoons</td>
<td></td>
<td>+28.24</td>
<td>-31.88</td>
<td>+60.12</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-27.30</td>
<td>-60.54</td>
<td>+33.24</td>
</tr>
</tbody>
</table>
The profit level was positively influenced by the floss removal from the 1\textsuperscript{st} quality cocoons (Euro 1,478), while the floss removal from the 2\textsuperscript{nd} quality cocoons had a negative impact resulting to Euro – 466 loss.

The profit rate was 14.35 \% in case of V1, while in case of VM, the loss rate was – 39.04 \%. The mechanized floss removal from the 1\textsuperscript{st} quality cocoons assures the highest profit rate: 28.24\%

CONCLUSIONS

1. Mechanization of floss removal in sericiculture is compulsory in order to increase economic efficiency.

2. The use of MCS-20 floss removing machine assures a 20 times higher productivity, 93 \% 1\textsuperscript{st} quality and 90 \% 2\textsuperscript{nd} quality floss removed cocoons.

3. The use of MCS-20 requires 50 \% less labor force.

4. The mechanized floss removal requires 10.2 times higher costs, but the related incomes are 19.29 higher than in the one registered when the manual procedure is applied.

5. The profit rate is 14.35 \% in case of the mechanized floss removal using MCS-20 and the highest profit rate 28.24 \% can be obtained when only 1\textsuperscript{st} quality cocoons are used.

6. The use of manual floss removal procedure is not justified any more.

BIBLIOGRAPHY


REDEFINITION OF THE RURAL ROMANIAN AREA

REDEFINIREA SPAȚIULUI RURAL ROMÂNESC

NICOLETA MATEOC-SÎRB*, T. MATEOC*,
C. CRISTA*, MIHAELA PĂCURAR**

The classified list of the Statistics Territorial Units (NUTS) of The European Union has been drawn up for the implementation of a unitary structure of the rural area at the level of all the member states. Since Romania has all the chances to become a member of E.U. starting with January 1st 2007, we think that it is necessary to be set up in Romania a structure similar to NUTS, a structure that should be functional from the administrative point of view and that should also be integrated to the communitary level.

Key words: administrative organization, regions, economical development, microregions, tradition, territorial units

The European Union has formulated the classified list of the Statistics Territorial Units (NUTS) by The European Statistics Office (Eurostat) since 1988, aiming thus to create a single logical and coherent structure of the territorial distribution at the entire level of The European Union and to elaborate a regional statistic system for the economical analysis, as well as for a development policy.

Starting with 1988, The European Commission periodically publishes (every three years) a report regarding the social – economical situation and the evolution of the NUTS regions of the member countries, from level NUTS 1 to level NUTS 3, and for level NUTS 4 and NUTS 5 uses the national administrative units of every state, units that are called LAU – 1 and LAU –2.

In 2003 the EU contained the following territorial units, according to NUTS classification:

* Banat’s University of Agricultural Sciences and Veterinary Medicine Timișoara - Faculty of Agricultural Management
** Banat's University of Agricultural Sciences and Veterinary Medicine Timisoara, Faculty of Agricultural Management Timisoara, Faculty of Agriculture
Table 1. The territorial units of NUTS from EU

<table>
<thead>
<tr>
<th>Territorial units</th>
<th>UE 15</th>
<th>UE 25</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUTS -1</td>
<td>72</td>
<td>89</td>
</tr>
<tr>
<td>NUTS -2</td>
<td>213</td>
<td>254</td>
</tr>
<tr>
<td>NUTS -3</td>
<td>1091</td>
<td>1214</td>
</tr>
<tr>
<td>LAU -1</td>
<td>2453</td>
<td>3334</td>
</tr>
<tr>
<td>LAU -2</td>
<td>95152</td>
<td>112119</td>
</tr>
</tbody>
</table>

There are several countries that form only one macro-region (Sweden, Luxembourg, Eire) while other countries present more macro-regions (Belgium, Germany, Italy, Greece, The Nederlands, Poland, Hungary, etc.).

In Romania, by the law no. 151/1998 regarding the regional development, there has been created the legal background that allowed that 4 to 7 districts to group and form an economic development region. Today in Romania there are 8 economic development regions according to the law no. 151/1998 (Table 2).

Table 2. Regions analysis marks in comparison with the total of Romania and EU

<table>
<thead>
<tr>
<th>Marks</th>
<th>Region (1) NORTH-EAST</th>
<th>Region (2) SOUTH-EAST</th>
<th>Region (3) SOUTHERN MUNtenia</th>
<th>Region (4) SOUTH-WEST OLTENIA</th>
<th>Region (5) NORTH-WEST</th>
<th>Region (6) CENTRE</th>
<th>Region (7) BUCHAREST ILFOV</th>
<th>ROMANIA</th>
<th>EU</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inhabitants (thousands of people)</td>
<td>3823.5</td>
<td>2934.3</td>
<td>3465.5</td>
<td>2399.8</td>
<td>2041</td>
<td>2844.0</td>
<td>2642.2</td>
<td>2284.7</td>
<td>22435.2</td>
</tr>
<tr>
<td>Area (km²)</td>
<td>36850</td>
<td>35762</td>
<td>34453</td>
<td>29212</td>
<td>32034</td>
<td>34160</td>
<td>34100</td>
<td>1821</td>
<td>238391</td>
</tr>
<tr>
<td>Inhabitants density (inhabitant/km²)</td>
<td>103.8</td>
<td>82.1</td>
<td>100.6</td>
<td>82.2</td>
<td>63.7</td>
<td>93.3</td>
<td>77.5</td>
<td>125.4</td>
<td>94.1</td>
</tr>
<tr>
<td>Weight of the rural population (%)</td>
<td>56.5</td>
<td>43.2</td>
<td>58.4</td>
<td>54.7</td>
<td>37.8</td>
<td>47.4</td>
<td>39.7</td>
<td>11.2</td>
<td>45.4</td>
</tr>
<tr>
<td>PIB (G.I.P.)/inhab (in comparison with the EU average) (%)</td>
<td>21.6</td>
<td>28.4</td>
<td>25.3</td>
<td>26.5</td>
<td>32.4</td>
<td>26.0</td>
<td>31.8</td>
<td>40.3</td>
<td>28.2</td>
</tr>
<tr>
<td>Agriculture, forestry, pisciculture (%)</td>
<td>51.2</td>
<td>44.7</td>
<td>48.6</td>
<td>51.2</td>
<td>35.9</td>
<td>45.9</td>
<td>34.0</td>
<td>6.6</td>
<td>41.4</td>
</tr>
<tr>
<td>Industry, constructions (%)</td>
<td>22.5</td>
<td>25.3</td>
<td>26.1</td>
<td>23.4</td>
<td>30.7</td>
<td>25.6</td>
<td>34.3</td>
<td>34.8</td>
<td>27.3</td>
</tr>
<tr>
<td>Services (%)</td>
<td>26.3</td>
<td>30.0</td>
<td>25.3</td>
<td>25.4</td>
<td>33.4</td>
<td>28.5</td>
<td>31.7</td>
<td>58.6</td>
<td>31.3</td>
</tr>
<tr>
<td>Mortality average (%)</td>
<td>13.0</td>
<td>10.4</td>
<td>10.0</td>
<td>10.1</td>
<td>9.3</td>
<td>10.7</td>
<td>10.4</td>
<td>8.0</td>
<td>10.5</td>
</tr>
</tbody>
</table>

Source: Data base of The Romanian Gov. – The National Development Plan 2002-2005
The development regions are defined as “areas that correspond to several groups of districts, set by association, on the basis of a convention signed by the representatives of the district councils and respectively by the representatives of The General Council of Bucharest Municipality” (Carta Verde, The Regional Development Policy of Romania, The Romanian Gov. And The European Commission, Bucharest 1997).

It has been considered that the 8 regions from Romania correspond to NUTS –2 of EU, and regarding the level NUTS –3 these correspond to the 42 districts. This is the way these regions have been recorded into the EU Report concerning the regional development, from 2003.

We think that these regions have been arbitrarily established, without considering the inter-districtual relations based on an organic development. There are several significant differences between the regions, especially regarding the development degree indicated by PIB / region, as it results from Table 2.

During the post-war period, there was a territorial delimitation of our country in provinces. Therefore, in 1937, pursuant to The Statistical Year Book, in Romania there were 10 provinces (Oltenia, Muntenia, Dobrogea, Moldova, Basarabia, Bucovina, Transylvania, Banat, Crișana, Maramureș) and 71 districts.

We now wonder about the reason that determined in 1988 the omission of the aforementioned fact, when the law 151 has been delivered, especially because these provinces had functioned surprisingly well during the post-war period, since their inhabitants had joint preoccupations on different activity fields and also had similar every-day life characteristics, expressed by tradition, costumes, customs, culture, folklore, traditions that could also be found today in some regions.

In Romania, the level of the macro-regions that would correspond to NUTS-4 or (LAU-1) has not been yet accurately determined. Today, the macro-regions are formed politically, on the basis of the voluntary partnership of some communal administrations, within some programs and projects.

NUTS-4 covers the level of the micro – regions, that represents the basic level of the policy of territorial development set up in inverse order. Therefore, the micro-region can be considered as a planning – development unit where most of the economic, commercial processes related to the infrastructure, administration, society, and basically all the activities of the
every-day life of the rural inhabitants are carried out. Their purpose is here to express the common aims jointly related to the localities, landscape, to coordinate the sources and to accomplish the development and to assure the development of the regional identity and the rural development.

It is illustrative in Romania the necessity of organization of the micro-regions for identifying and defining the imaginary boundaries of those tradition areas where the inhabitants have the same trades and skills from generations to generations, and where the activities develop on the natural resources of the area, for example like in: Apuseni Mountains Region (Țara Moților), Oaș county, Almăjului county, Banat, Crișana, Bucovina, Făgărașului county, Maramureș, Sibiu area etc. Therefore, in all the developed EU countries, the administrative – territorial organization of the states has been grounded on the tradition elements. France, for example comprises even today the 9th historical tradition regions for the economical development, such as: Ile de France, Bassin Parisien, Nord Pas-de-Galais, Est, Quest, Sud-Ouest, Centre-Est, Mediterranee, Departaments d`outre-mer (Guadalupe, Martinique, Guayane).

In Germany for NUTS-1 correspond the 16th tradition regions called lands. Hungary has already established the territorial economic development units as follows: NUTS-1: 3 powerful statistical regions; NUTS-2: 7 statistical – planning regions; NUTS-3: 20 districts plus Budapest; NUTS-4: 148 small statistical territories; NUTS-5: 3145 localities.

Since in Romania the central public administrative structures have not reorganized their activity to the local level, respectively to the regional level pursuant to the new regulations delivered for this particular reason, we consider that it would be necessary the revision of the territorial - administrative delimitation of these 8 regions before the economic decentralization of every region. The delimitation should be correctly performed for all the NUTS levels in order to meet the joint necessity of the inhabitants from that particular region.

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Unlike developed countries, there is no co-operative system of supply and marketing and processing of agricultural products in Romania that meet agriculturists’ demands.

Studying the co-operative system in European Union countries and adapting these systems in our country in the conditions of Romania’s accession to European Union structures has become a must.

**Key words:** co-operation, necessity, future, upstream, and downstream

Agricultural co-operative is a type of agricultural establishment that has a particular importance in a market economy.

In developed countries, co-operatives are organised as follows:

- At a primary level, there are co-operatives organised territorially that can be simple or mono-, or multi-functional ones;

- At a secondary level, there are primary co-operative associations, called 2\textsuperscript{nd} degree co-operatives, whose scope is to invest upstream or downstream primary member co-operatives. Their object of activity has a regional distribution (for example, a group of co-operatives collecting milk can associate to invest in milk processing units).

- At a tertiary level, there are 3\textsuperscript{rd} degree co-operatives constituted by the union of expertise and resources of 2\textsuperscript{nd} degree co-operatives to form stronger financial, commercial, and industrial groups that can make themselves room on the market; in most countries, these 3\textsuperscript{rd} co-operatives already represent national level.

*Banat’s University of Agricultural Sciences and Veterinary Medicine Timişoara - Faculty of Agricultural Management*
Production is achieved at the level of individual exploitations, and the agriculturist is fully responsible for it.

Constituting agricultural co-operatives consists of associating capital, that is based on private family exploitation and that aims at supplying agriculturists, processing and marketing agricultural products. An agricultural co-operative is a tool allowing agriculturists to manage properly the upstream and the downstream of their activity.

Freely consented association of agriculturists in co-operatives aiming at supplying production factors and consumption goods, processing and marketing products can constitute an efficient and even economic order for the production and the distribution of profit.

In developing the law frame and in constituting an agriculturist co-operative system it is necessary to bear in mind some basic principles:

- The free agreement of agricultural producers to adhere to one or more forms of co-operation;
- The basis of the agricultural co-operation is private-family exploitation that keeps its ownership of land and production means no matter the forms of co-operation;
- Diversifying forms and domains of co-operation depending on real needs of the agriculturists;
- Co-operation shall bring real profits, not hypothetical ones, which shall allow agriculturists to improve incomes through all services supplied by the co-operation;
- An agricultural co-operation shall be conceived within a broader frame of “rural co-operation”;
- Government’s support through cheap credits, subventions, technical assistance, etc.

Agricultural co-operative movement is more than 150 years old, and the forms of co-operation and association have evolved and diversified with the passage of extensive to intensive agriculture.

Firstly, co-operatives were grouped into producers’ co-operatives and consumers’ co-operatives. Then, classification was done into consumption co-operatives, credit co-operatives, and agricultural co-operatives.

In France, there are forms of organisation of agriculturists such as: groups of exploitation in common and groups of producers, agriculturists’ co-operatives, agricultural co-operative societies, unions and federations of
co-operatives, societies of agricultural interest, mixed societies of agricultural interest, groups of economic interest, professional and inter-professional organisations, etc.

Co-operative societies are organised for production factor supply activities. This type of co-operatives is called Agricultural Material Use Cooperatives. They also organise agricultural product marketing co-operatives that ensure the marketing of products (over 50% of the milk production and over 80% of the wheat production are marketed through co-operatives).

Co-operative unions and federations are organised by branches and they operate on the ground of a status aiming at promoting, supporting, and defending the interests of member co-operatives.

Collective Agricultural Interest Societies are organised in domains such as electricity, meat, fruit, and vegetable production, and rural habitat, aiming at promoting technical and technological modernising and marketing products.

Economic Interest Mixed Societies are organised with the scope of associating agricultural and commercial interests with industrial ones.

Economic Interest Groups are organised by physical persons or by groups that associate to develop common activities in specific domains (research, advertising, etc.). Agriculturists also organise under the form of mutual and credit organisms, such as: the Mutual Agricultural Credit, whose scopes are professional; the Agricultural Mutuality, which is an agricultural society with a supporting role and that insures in case of natural calamity.

French farmers use on a large-scale services supplied by multiple co-operatives: supply of production factors, soil and forage analyses, accounting and management assistance, etc.

In Germany, co-operation is most often met at the level of agricultural production, under the form of common production units (“production associations”), such as: broiler chicken growing units, young fattening swine units, fruit-tree plantations (“associations of fruit producers”).

All agricultural co-operatives are members of the German Federal Union, the largest co-operative union in the country. Through the supply-marketing co-operative system, German agriculture gets 70% of the chemicals, 66% of the mixed forage, 60% of the mineral fertilisers, 35% of the machines and equipment. In their own establishments, co-operatives produce about 40% of the mixed forage. Co-operatives produce and market
85% of the butter production, 75% of the milk production, and 71% of the cheese production.

In Germany, co-operatives cover 85% of the food export in Community member nations, and 72% of the import.

In Holland, unlike other Community member nations, almost all co-operatives are specialised. Most Dutch farmers are members of at least 3-4 co-operatives.

The co-operative system contains:
- credit co-operatives;
- supply co-operatives;
- milk production and processing co-operatives;
- sugar beet processing co-operatives;
- forage potato production co-operatives;
- meat production and meat product production co-operatives.

Denmark is the greatest pork exporter in the world. Its slaughterhouses are on the main co-operatives. 90% of the 12 million slaughtered hogs are processed in co-operative slaughterhouses developed by agriculturists.

What characterises Denmark and Norway is the fact that practically agricultural co-operation has developed without a specific legislation. Co-operatists that found a co-operative develop their own legal form, completely adopted to the individual situation and in agreement with reality.

There are nowadays in Denmark 501 co-operative societies of which 171 in production, processing, and marketing of dairy products; in hog raising and in bacon industry; in other agricultural domains; fishing and gardening; in supply; in cement factories of the co-operative type; in petroleum co-operative societies; in insurance co-operative societies; in popular banks (credit co-operatives).

In 1989, there were in the C.E.E. member nations 36,798 agricultural co-operatives with a number of 12.5 million members and over 158 billion ECU in annual revenue.

Until World War II agrarian structures in Romania were part of the European evolution trends.

Central co-operative institutions in Romania had their origins in the village Popular Bank Law in 1903. In 1918, by the Duca Decree-Law they founded the Central House of Co-operation and Land Reform. In 1928 issued the Co-operation Code, and between 1933-1935 issued several
normative acts that established the forms of organisation of agricultural co-operation in Romania.

The co-operative movement played an important role in the first half of the century in supporting and developing peasant exploitations by ensuring financial means (rural credit), orienting agriculturists in practicing a rational agriculture, according to an economic plan, supplying selected seeds and planting material, breed animals, organising processing and marketing of products, increasing exploitations’ size by tenancy and land acquisition, acquiring and using in common the main agricultural machines with high costs, etc.

At the level of 1939 there were, in the rural area, 4111 credit co-operatives, 1372 consumption co-operatives, 355 supply co-operatives, 254 forestry co-operatives, 214 dairies, 203 associations for land purchasing, 67 associations for land tenancy.

Starting with 1949, with the constitution of the C.C. of the R.L.P. on March 3-5, which started the socialisation of agriculture, agrarian structures already existing and rural co-operative institutions were destroyed and replaced by a structure of the socialist type subordinated to Government’s structures and centrally led.

In these conditions, the idea of co-operation itself was compromised in the eyes of rural population. Village consumption co-operative, developed on the ground of the social capital constituted by the contribution of the local people, was turned into an annexe of State socialist trade, in which all norms of co-operative democracy were run over, that had constituted the basis for development in the first half of the century.

Reconsidering the concept of co-operative organising of Romanian agriculture after western models is a must of the present times. In this way we resume the historical course so abruptly interrupted in 1948, ensuring a structural European integration.

After 1989, co-operation between agriculturists took the form of family associations with no legal personality, associations of producers, and agricultural associations with legal personality, most with a crop profile and whose scope was to work the land in common.

The Law 31/1990 concerning commercial societies and the Law 36/1991 concerning the association and agricultural societies did not enhance the development of co-operatives comparable with those in
developed countries. The Law 36/1991 aimed at preserving the old
Communist agricultural production co-operative.

Agriculturists reject the mis-conceived so-operative system during
the Communist period of Romania and proved inefficient after 1990.

Table 1.

Evolution of organisation structures in Romania’s agriculture

<table>
<thead>
<tr>
<th></th>
<th>Association sector</th>
<th></th>
<th>Non-association sector</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Agricultural societies</td>
<td>Family associations</td>
<td>Individual farms</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total area (thousands of ha)</td>
<td>Number (thousands)</td>
<td>Average area (ha)</td>
<td>Total area (thousands of ha)</td>
</tr>
<tr>
<td>Dec. 1993</td>
<td>1910</td>
<td>4265</td>
<td>448</td>
<td>1763</td>
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<tr>
<td>Dec. 1995</td>
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<td>3973</td>
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<td>1714</td>
<td>3913</td>
<td>438</td>
<td>1000</td>
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<tr>
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<td>1415</td>
<td>3573</td>
<td>396</td>
<td>868</td>
</tr>
<tr>
<td>Dec. 2000</td>
<td>1592</td>
<td>3724</td>
<td>427</td>
<td>648</td>
</tr>
</tbody>
</table>

Source: MAAP

We need a co-operative system in Romanian agriculture first for
economic reasons in the field of marketing and processing milk, vegetables,
or fruits, or in the field of wine-making and marketing, etc.

The Law of Agricultural Co-operation 566/December 22, 2004 is
one of the most important ones, absolutely necessary for the Romanian
agricultural sector; it needs analysed from both advantage and disadvantage,
and imperfections and lack points of view in this form. Co-operatives
founded according to this law resemble very much to ex-co-operatives in the
Communist period.

We think that when Romania is a European Union member nation
starting with 2007, all agrarian structures should be compatible with those
existing in European Union member nations.

European Union member nations have a wide experience in the field
of co-operation, an experience that needs to be known and implemented by
Romanian agriculturists.
For example, Art. 7 of the Law is but a series of commercial activities that can be developed within an agricultural co-operative without mentioning in detail the type of activities, which makes room for confusion. For example, Art. 7 refers to a) or c) “obtaining agricultural goods of vegetal, animal, and fish origin, according to market standards”.

According to Art. 7 – (1), “in an agricultural co-operative, the rights and obligations of co-operative members are even, no matter the size of the share of each one to social capital, each member expressing one single vote” (this seems not fair that, no matter the share of a member, his rights and obligations be the same), and Art. 19, respectively, stipulate that “the patrimony responsibility of a member is limited to the number of social shares subscribed”.

Patrimony responsibility is exactly the same in the case of limited responsibility societies, which means that agriculturists are responsible within social shares subscribed, i.e. no matter the value, the sum the agricultural co-operative will be due, its members shall be kept responsible financially only within social shares subscribed, being thus able to prejudice State budget without any problems. In this situation too, as well as in the case of limited liability societies, there is no protection in case of recuperating debts accumulated by agricultural co-operatives to State budget from the point of view of tax system.

CONCLUSIONS

1. Establishing agricultural co-operatives consists of associating capital based on private family exploitations and aiming at supplying agriculturists, taking over, and marketing agricultural products; association concerns only production upstream and downstream activities.

2. In Romania, co-operative movement played an important role in the first half of the 20th century in supporting and developing rural exploitations.

3. Due to the co-operative system badly conceived and organised in Romania both during the Communist period and after the Agricultural Co-operation Law 566/2004, there is a repulsion of many agriculturists to this way of organising agriculture, and this will have negative consequences on the development of Romanian agriculture.
4. In Romania we need co-operatives in the field of supplying with production factors and materials; marketing and processing milk, vegetables, and fruits, wine-making; services for agriculture (chemical treatments, high precision works, etc.); storing grains, fruits, etc. such as they are in the European Union developed countries.

5. We think that the present form of the Law of Agricultural Co-operation 566/2004 in Romania is too much inspired from the Status of the Communist Agricultural Production Co-operatives and too little from the functioning of European Union member nation agricultural co-operatives which have a lot of experience in the field, countries with which Romania will compete the moment it accesses European Union structures.

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The dimension of tourism in Europe in some regions or countries etc is approached frequently by economic indicators – the active population in this field, the volume of tourism expressed in the number of over night staying in the visited areas, consumption, turnover, incomes from tourism, tourism contribution to GDP, incomes of population working in tourism (integ rally or partially) etc. European dimension of tourism means in fact, a constitutive element, a component with increasing potential in the new face of the continent: The United Europe. The geographical position of Timis County is very appealing for tourism development inside the Euro-region DKMT.

**Key words:** regionalizing process, Euro-region, cooperation, tourism development

**EUROPEAN DIMENSION OF TOURISM**

A general characteristic of our society is the radical change of some fundamental dimensions of our existence: we witness time expansion and space confinement.

In such an approach, time expansion as a social time, there are several concrete hypotheses.

a. Incredible time expansion as an economic potential. After the industrial, scientific and technical revolution, there has been a tremendous growth of the labor productivity.

b. Strongly connected with this progress there is also time expansion in which the individual lives.

Thanks to time dilatation by the increasing of medium life duration, in this century we live in another society, in which the entire human
existence is reconditioned. It is a much more “comprehensive” existence, offering among other consequences, special possibilities of leisure, among which the new phenomenon: tourism under all its forms.

The factors, processes which determined (and still determine) time dilatation, have determined (and still determine in a visible way in the last decades) space confinement.

An aspect of confinement is the cosmic one, materialized in the man’s intrusion in extraterrestrial spaces, including in the observation and knowledge range large areas, approaching unsuspected worlds and transforming into objects of contemporary scientific investigation.

The establishment of Economic European Community –the Rome treaty stipulates (art. 39, later art. 33) a series of strategic objectives for the agricultural development of the Community, pursuing: the assurance of a decent life for the agricultural population, comparable to the other sectors, the modernization of agricultural structures and the development of agricultural production, equitable consumption prices, market stabilization.

The results obtained according to concerted efforts and solidarities: agriculture modernization, decrease of active population in agriculture (at EU level at 20% at 8%), the growth of agricultural production, realization of a high level of food security, at relative low prices of agricultural products, protected by dramatic oscillations on the world market. Simultaneously with this process, the significant of rural economy, its ascension to multifunctional by developing non-agricultural sectors or those associated with agriculture up the river and down the river, the development – inside the villages – of industry, services, commerce, tourism amplification and its contribution to rural progress.

The dimension of tourism in Europe in some regions or countries etc is approached frequently by economic indicators – the active population in this field, the volume of tourism expressed in the number of over night staying in the visited areas, consumption, turnover, incomes from tourism, tourism contribution to GDP, incomes of population working in tourism (integ rally or partially) etc.

European dimension of tourism means in fact, a constitutive element, a component with increasing potential in the new face of the continent: The United Europe.

Countries accession to EU is made according to a series of plans, with a series of processes – broadly in the same time – but with different
difficulties, problems, speeds etc. (see the main industry and construction issues, in the alignment processes). An important aspect of tourism is that it can cover long distances on the road of European adhesion. In this sense, some elements, circumstances can be reminded which is in favor of integration in the past:

- Absence of prior structures to be taken down, rebuilt, restructured etc.;
- Existence of a great human, cultural, natural, geographic capital etc, for tourism development;
- The necessary of capital, financial resources, even if large on a national level – in most cases – does not suppose billion concentrations, hard to achieve and to administrate, and is constituted on local levels, without implying systems, networks, heavy mechanism;
- In this way it is identified and mobilized the necessary resources; although in general small or very small, these resources can be used in spite of its modest volume, because in most cases its launching does not need big state funds (unlike the creation of an industrial objective), the action development being possible, of step development programs at first with small steps and very small steps and with relative profitable dumping rates, having a contribution to auto-generation and auto-amplification;
- In numerous plans – such as, infrastructure development, public utility actions etc. – development programs of tourism are organically integrated in the sustained efforts, to be imposed a perspective which aims – next to general objectives – tourism development;
- To underline the exceptional importance of individual and family resources: their mobilization and operation, besides the increase of the qualitative level of habitat, of household as a major objective of personal, social-cultural ascension, can be envisaged also as an effort for the capitalization of their realization through tourism and the opposite, any action to rearrange the household for tourism raises its value for the owner;
- Without asking for an important financial support from a poor budget, even in restrictive conditions, state can make a special and very important support in legal, fiscal and administrative ways, in order to stimulate tourism in rural areas.

Without having any exhaustive intention, the above examples are set only to illustrate conditions, circumstances from which a series of specific
features results and which certifies certain of its advantages in the European adhesion process.

TIMIS COUNTY IN THE REGIONALIZING PROCESS

Concerning the Timis County position and the western area in the country, a significant image is created by relating the area to a regional structure of Romania. The region-making project is very recent.

In the spring of 1997 „Carta Verde” project was published – regional development project in Romania, made the Romanian Government (European Commission, in the PHARE program, initiated by the European Union and the Romanian Government). The program activities started in February 1st 1996 and finished in January 31st 1998.

The objectives of the proposed politics are:
- Preparation of Romania for the European Union adhesion and to obtain some of its structural funds;
- Reduction of differences between different regions in Romania;
- Integration of public utility actions in order to achieve a superior development level for regions.

5th Western Region (Counties: Arad, Caraş-Severin, Hunedoara, Timiș), although one of the developed region, it includes – integrally or partially – some of the possible prior arias, such as:
- 5th area: mining and metallurgic Banat area;
- 12th area: coal bearing area in Valea Jiului;
- 13th area: metallurgic area of Hunedoara and partially;
- 6th area: Apuseni Mountains (the part situated in Arad County).

Three of these areas are marked by stringent issues concerning the survival perspectives of some industrial and mining areas, issues that affect a numerous population.

Without even trying to make an issue list in region development setting, there are some strategic conclusions for the Timis County and for the entire Western.

- The necessity of conceiving solutions for the problems in Timis County, including those in rural area not only on a local level, but one even broaden, on a regional level. Such an approach needs a tight correlation of needs, human resources and materials from all the four counties of the 5th
Western Region. Due to the critical industrial situation of this region – mainly in the 5th Western Region, the boosting of the region depends mainly upon the development of rural space, and in this setting that of non-agricultural. This is how it was born the opportunity to discuss the conclusions of the present study not only in Timis County, but also on a regional level, including extending the investigation in all four counties.

- The 5th Western Region has a favorable geographic position: neighborhood with Hungary and Yugoslavia, closeness to Austria, Croatia, Slovenia, Bulgaria, Italy etc., location on the great traffic axes (Western-East, North-South) in Europe, secular relations with Austria and Germany etc. are all potential advantages for the development of over frontiers relations with areas from limitary and close areas, also the closeness to the rest of the continent.

**TIMIS COUNTY IN THE DKMT EURO-REGIONAL CONTEXT - CHANCE AND CHALLENGE**

Almost parallel with the regionalization in the national territory, there is also the creation of the Euro-region Danube-Mures-Tisa, reuniting four counties in Romania and Hungary, respective Voevodina province from Yugoslavia, the Euro-region DKMT – with a total population of almost 6 million people represents a considerable human potential (for comparison, see the population of countries such as: Denmark, 5,28, Finland – 5,14, Georgia – 5,43, Israel – 5,83, Slovakia – 5,38 million people). Far from overestimating the demographic size, Euro-region DKMT has a large human potential – in general human resources, labor resources, millions of consumers etc. It is to underline the ethnical structure of this population – the presence of a large number of Romanians in Voevodina and bordering counties from Hungary and also the territories from the Euro-region DKMT, with a great range of multiculturalism, with multi-secular customs of living, of cultural interferences. Also it is a region with an important cultural potential – university centers, scientific research, prestigious art institutions – assures a considerable position to the region even on a European level. This human, cultural potential represents a solid foundation for the region development, fact which is noticed on a much broader area, being an attractive factor for the foreign investors, their interest being materialized in
a large number of investments, some of them in industry, commerce, banking system, services etc.

Economically speaking, - composition, structures, tendencies, perspectives – there are also similarities and complementary elements. Among the first ones, it can be reminded that unlike many other areas from the three countries – heavy inheritances of a forced industrialization and materialized in industrial giants, these are much more bearable, reorientation towards a market economy with rational structures, being relatively easier (see Timis and Arad county) and the territories of the Euro-region DKMT from the neighboring countries, but there are also more difficult areas, such as, Hunedoara and Caras-Severin counties.

Another common feature represents the lower concentration level of industry, their better presence in medium and small cities, sometime even in rural locations (Hungary, Voevodina), which offers challenging opportunities for the balanced development inside the counties, a smaller pressure of unemployment without the danger of becoming a chronic structure.

A great opportunity is the agricultural cooperation perspectives, considering the great potential in this field in the biggest part of the region, an operable cooperation on the production level, on the supplying, consumption level or even on the exterior.

TOURISM DEVELOPMENT IN TIMIS COUNTY INSIDE THE INTRA AND INTER-REGIONAL COOPERATION

Without having any doubt, the eight regions in the country, and among them, the 5th West Region offers great opportunities for tourism development in Timis.

Advanced experiences such as, those in Austria, Switzerland, Germany, France, England or Scotland etc. are very illuminating concerning this type of cooperations. For example, in Austria, so famous for various kinds of tourism, there are large organization networks which include all provinces, and here information is offered in the bigger or smaller areas, going to small units – prospectus, maps etc. – about the tourism network in neighborhood or on a large area. Unlike the frequent isolation manifestations, of misunderstood competition, of the fear not to guide the customers towards others, this kind of experience in Austria shows the fact
that the advantages of cooperation in tourism are clear, the same interests on a national level.

This experience – very spread in Europe – represent a pattern for us too, or with a series of new accent:
- The necessity to collaborate at the beginning of tourism development, and mostly in rural locations.
- Capitalization on this way of different conditions in Romania, variety which gets to the danger of misinterpreted competition.
- The necessity of creating county, regional structures, because they are conditions of accession when asking for a communitarian financial sources.
- In the case of Timis County, having a relative modest potential, comparative to other counties in the 5th Western Region ( Caraș-Severin, Hunedoara), the intra and inter- regional cooperation becomes increasingly important.

**EURO-REGION DKMT – A NEW HORIZON FOR TOURISM DEVELOPMENT IN TIMIS COUNTY**

The geographical position of Timis County is very appealing for tourism development inside the Euro-region DKMT. The advantages that result from this position:
- Neighborhood with the two countries;
- Contacts, old connections with bordering areas;
- Location on great European axes: North-South, East-West;
- Existence of an international airport;
- Closeness with many capital cities – Belgrade, Zagreb, Budapest, Bratislava, Vienna – and also an important other centers, areas with many tourists;
- Big possibilities of the county for transit tourism;
- Important cooperation possibilities inside the Euro-region DKMT when organizing different forms of tourism, cultural and artistic manifestations;
- Capitalization with this purpose of some organization forms, structure, existing institutions, and also the experience gained in the last decade and even earlier;
- Acceleration of integration processes, of development of frontier cooperation in all fields, including tourism.

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DEVELOPMENT STRATEGY OF TOURISM IN TIMIS COUNTY

STRATEGIA DE DEZVOLTARE A TURISMULUI ÎN JUDEȚUL TIMIȘ

I. CSÖSZ*

The strategy in tourism on a national but also on a county level has to mediate the creation and the development of a favorable environment. Tourism has to be envisaged as an industrial business or in the worst scenario as small or middle companies, and the strategic elements have to support this sector in order to create a stable environment capable of orienting the production and the sale of tourism products.

Key words: development strategy, tourism, strategic program, projects.

In order to give answers to some issues that tourism development implies, the special literature envisages the use of an instrument which proved to be useful in companies, and namely the strategic demarche. The large companies have used for a long time this technique for adjusting the decision taking process in relation with the competition on the functional markets.

The enunciation of development strategies of tourism represents a natural step that follows the analysis-diagnostic and whose task consists in establishing the basis objectives then the concrete actions stipulated in the programs. The strategies have to include the prior measures and the prior intervention regions. The strategic approach has also the role to formulate the strategic alternatives and the solving of issues of tourism development.

The strategy in tourism on a national but also on a county level has to mediate the creation and the development of a favorable environment. Tourism has to be envisaged as an industrial business or in the worst scenario as small or middle companies, and the strategic elements have to

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support this sector in order to create a stable environment capable of orienting the production and the sale of tourism products.

The strategic elements that represent the starting point in establishing the strategy are some major elements, such as:

- The establishment of equilibrium and the maintenance of competition between natural and cultural resources, infrastructure and capital and not the least human resources;
- Structure and quality of tourism offer by stimulating competition between producers;
- Dimension and size of tourism companies, which is in fact the stimulus of competition between tourism companies;
- Tourism market with all basis elements: request order, offer, competition and the price of tourism product.

Taking into consideration the advantages of tourism as a motivation of labor, as a stimulus for its retraining and reforming in the economic county environment, local council but also economic agents have to fight for creating and developing the tourism sector and especially and mainly obtaining favorable economic results much more easy to obtain.

The strategic program is strongly connected with tourism areas, by specifying inside the programs the correct way of what will be done, who will do, and the means to do this.

1st Area: Alternative tourism pre-local- Timișoara.

Two prior strategic programs, from which the first refers to maintaining and development of the current tourism structures and facilities, from which we emphasize the classic cultural and architectural tourism of Timisoara.

The second strategic program is planning the building of a recreation area for weekend close to Timișoara.

2nd Area: Alternative multicultural tourism in Western area.

The first strategic priority of these areas is to maintain and develop the existent development structures in the areas. The western area of Timis County is known for its harmonic cohabitation of at least five different nations who created their own customs, culture and monuments.

The second strategic priority refers to boosting and promoting the wine-growing lowland in Teremia Mare.

The third priority or strategic program refers to building some recreation and weekend areas in the rural area or pre-local of this area.
The 3rd area: Agro-tourism and recreation tourism in the pre-mountain area of the mountain Poiana Ruscă.

In this area, which can be considered the most picturesque and with the biggest potential in Timis County, at least three prior strategic programs can be identified:

The first strategic priority is given by the geomorphologic and anthropogenic potential of the area and consists in the visit and admiration tourism of this mountain area with many cavern characteristics: Romanesti area, Pietroasa area – known for the caverns in this area (Pestera Ursului, Pestera Muierii, Pestera Romanesti) from which some of them are interesting for its cavern and historic shapes and others for its acoustics.

The second strategic priority is represented by the agro-tourism arrangements in the area.

The third strategic priority includes also the recreation area Surduc.

The fourth area: Alternative tourism at Buziaș-Recaș-Lugoj

The area is very important from the point of view of the tourism because at least two prior strategic programs can be identified.

The first prior strategic program is planning to maintain and develop the current structures and the tourism arrangements especially in the SPA and bathing resort Băile Buziaș.

The second strategic program refers to get profit from the wine-growing potential of the area by visiting the wine estates in Silagiu-Buziaș, Recaș and Lugoj and by organizing wine tastes in the wine cellars of these estates.

5th Area: Alternative multicultural Deta-Banloc.

The strategic program in this area is dominated by the two tourism priorities– the Castle and the Banloc park and the recreation area and Deta’s swimming pool.

The first strategic program includes the possibility to make tourism in Banloc.

The second strategic program refers to building a recreation area in Deta at the thermal swimming pool and to sustain the improvements programs for the infrastructure in CBC projects.


The tourism vocation of the area comes from the geomorphological, hunting and fishy potential of the area. From this reason, there are three prior strategic programs for tourism.
The first and the most important is the hunting and fishy potential. The second strategic program is to build a recreation and weekend area. The recreation area can be built around the area Sarlata, Buzad, Altringen.

The third strategic program refers to boosting the tourism activity for teenagers at the camp area in Bogda și Sarlota.

**POLARIZATION CENTERS – TOURISM POLARIZATION CENTERS**

The irregular development of an economic and geographic space can be explained with the theory of „development poles” or with the polarization centre of the development poles.

Special attention must be assigned to develop the infrastructure from the centre to suburbs so that the development centre should be transformed in development pole and in development centre which should influence the entire area at their turn.

In Timis county attention must be assigned to the urban and rural development centers.

**DEVELOPMENT CENTRE**

**Urban centers.** The most important urban development centre is Timișoara, around which an urban area has been created. Being a powerful urban centre, the suburb area has been transformed in a providing area for its population, neglecting the real vocation of this suburb area. The same thing can be said about other urban centers which created in the same urban area, but much more reduced.

**Rural center.** In the exclusive rural area in the western county, in areas where there is no important rural centers to influence the area on distance of 15-20 km.

The rural centers are real agricultural centers which have a providing and processing are, and a storage and capitalization system of this agricultural products.

**STRATEGIC OBJECTIVES OF DEVELOPMENT POLES**

The polarization centers follow up a series of strategic objectives for its maintaining and developing as development poles, which are the
following:
- To maintain the development of industry, services and tourism;
- To develop the physical infrastructure;
- The extension of small and medium companies;
- Decentralization of economic development;
- Development of non-agricultural activities;
- Development of rural tourism;
- Development of forest tourism;
- Development of other forms of tourism.

STRATEGIC DEVELOPMENT MEASURES OF DEVELOPMENT POLES

Strategic measures of development poles in the field of tourism development is planning to modernize and develop the infrastructure and firstly the traffic means and used tourism facilities and equipment (which includes also the telecommunication infrastructure).

Another strategic measure is to assist the labor agency in creating new jobs especially in the field of small and medium companies.

To develop some recreation and sport centers, to encourage the development of cultural tourism (tourism for art products, for the customs of national minorities, religious tourism, wine growing tourism, agro-tourism, forest tourism, hunting and fishing tourism and off road tourism).

Also it can be included in the strategic measures the development in territory of financial-bank services and a basis measure is the environmental protection and the improvement of the quality of environmental factors and the durable development of rural space.

A new basis measure of development of polarization centre is and will remain the development of the intra and inter-regional cooperation and the development of international and beyond frontiers cooperation.

The strategic development program of tourism in Timis County is a big program, which refers to the demarcation of Timis County on six tourism development areas from the point of view of the tourism potential. In the six areas a number of 15 strategic programs and 34 projects can be identified. It is obvious that for implementing all these projects it is necessary to have adequate financial and human resources. Beside these
resources it is necessary to have a performing management of the project and adequate actions to develop the program.

The strategic development tourism program is outlined on the six areas with tourism potential:

- Area 1: Alternative tourism pre-urban Timișoara
- Area 2: Multicultural alternative tourism Western Area
- Area 3: Agro-tourism, pre-mountain area Poiana Ruscăi
- Area 4: Alternative tourism Buziaș-Recaș-Lugoj
- Area 5: Multicultural alternative tourism Deta-Banloc

The six areas with tourism potential include a number of 15 important strategic programs which are the starting point for the future projects, and the financial and human resources have to be assured. The 15 strategic programs are the following:

1) Maintain and develop the current tourism structures and facilities in Timișoara.
2) Build and arrange a recreation area (Dumbrăvița dam).
3) Maintain and develop the current tourism structures and facilities in Jimbolia and Sînnicolau Mare.
4) Boost and promote the wine growing lowland area of Teremia Mare.
5) Build a recreation and weekend spending location to capitalize the geothermal water in Lovrin.
6) Build and promote camping and recreation tourism to visit the cavern area in Românești.
7) Build and promote an organized tourism in the area of villages Curtea, Margina, Poieni.
8) Arrange the recreation lake at Surduc.
9) Boost the SPA and bathing resort at Bâile Buziaș.
10) Capitalize on the wine growing potential of the area Buziaș-Lugoj-Recaș, organize wine tastes in the wine cellars of these estates.
11) Recondition and promote the cultural tourism near Banloc castle.
12) Build a recreation and leisure location in Deta.
13) Develop and promote the hunting and fishing tourism in Pișchia and Mașloc area.
14) Build and develop a recreation and week-end leisure location at Sarlosta.

15) Boost and promote the youth tourism at Bogda.

This large number of projects generates other possible projects to be promoted in order to realize the strategic programs and to achieve the general tourism development strategy in Timis County.

Considering the development program of tourism and the planned strategic programs of analysis of their realization means, the analysis of the financial and human resources is imposed.

We have to keep in mind that although the Timis County Council is the initiator of this development strategy in Timis, but it is not responsible for its integral financing of this, only if it is included in its jurisdiction.

The main financing sources of the program that can be envisaged are:

- Timis County Council, for the field which are its responsibility;
- The special tourism development fund of Timis County (fund to be created from private and public capital);
- EU financing programs (PHARE, SAPARD, CBC etc.);
- Other national or international financing programs.

HUMAN RESOURCES

One of the main issues of the strategic programs is to assure the adequate and qualitative human resources.

Due to the fact that projects will be assigned through public auctions, the conditions of contract are the ones which impose conditions regarding the quality of human resources.

ACTIONS TO TAKE WHEN LAUNCHING THE STRATEGIC DEVELOPMENT PROGRAMS OF TOURISM IN TIMIS COUNTY

Launching the implementing action of the strategic development progress of tourism consists in two consecutive steps. The first step consists in organizing the management of enumerated and approved programs by the present strategy. This preliminary phase includes the setting up and the launching of institutions necessary to the program and the drafting and publication of work book, management criteria, auction and funds obtaining criteria in the case of projects. The target projects to be selected are very
numerous and their number may increase according to publication of acceptance conditions of the selection criteria.

Hereinafter we will present the principle layout of some possible projects to be drafted for acceptance and for obtaining finance from the Timis County Council and special funds from the same institution.

These four projects are:
- Tourism arrangement of Surduc Lake;
- Arrangement of agro-tourism location in the village of Curtea;
- Setting up and arrangement of recreation area at the Dumbrăvița dam;
- Arrangement of recreation tourism at the thermal swimming-pool in Lovrin.

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THE IMPACT OF THE NEW REFORMS OF COMMON AGRICULTURAL POLICY ON THE SYSTEM OF AGRICULTURAL FINANCING

IMPACTUL NOILOR REFORME ALE PAC ASUPRA SISTEMULUI DE FINANȚARE A AGRICULTURII

V. GOŞA*, T. BERAR**

The literature of the field, the official communiqués and various publications describe with more or less details the process Romania is to go through both before and after its adhering to the European Union. The present paper is not only a presentation of the changes in the CAP contents, but also a comment on their implications on Romanian agriculture and rural space.

Key words: Common Agricultural Policy, sustainable development, direct payments

The ascending evolution of agriculture in the European Union has been based on a development programme with financial support from considerable community funds. Depending on the evolution of agriculture, the intra-community relations and the OMC, the Common Agricultural Policy (CAP) has been adjusted several times in order to eliminate possible imbalances and implement new orientations.

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1. THE MAIN STAGES OF CAP EVOLUTION

In 1958, in the spirit of the 1957 Rome Treaty, the Stressa Conference established the basic principles of the Common Agricultural Policy. Their implementation took ten years (1962-1972), which was in fact the first stage of CAP with its unique pillar — agriculture.

The main objectives of this period were increased labour productivity in agriculture, price stabilisation, fair incomes for farmers, food safety and reasonable prices for consumers.

To achieve these objectives, specific mechanisms were applied. They were based mostly on implementing a system of guaranteed domestic prices for a wide range of goods obtained by the farmers, stronger import protection and subventions for export.

The second period of CAP (1973-1982) continued the measures taken in the beginning but also adopted a new and far more prudent policy for agricultural produce prices. The objectives of the first stages were unchanged, but starting with 1979 the sugar, wine and milk production process was limited by replacing the co-responsibility taxes and introducing production quotas.

The effects of the measures adopted in the first two stages have determined a better self-supply with agricultural produce and an accentuated increase of surplus. The number of farms kept decreasing with 3% per year, and the subsistence farms were modernised and reorganised on productivity criteria.

The third period (1983-1991) is considered the crisis period of CAP because the high surplus and the fast increase of budgetary costs led to serious criticism both from inside the EEC and its external partners during the prolonged negotiations of the Uruguay Round.

The measures taken in the third period that aimed at reducing the imbalances were mostly oriented towards limiting the production and reducing the budgetary costs for agriculture.

The 1992-1199 period was dominated by the 1992 CAP reform and was characterised by far more radical measures than in the previous stages. The 1992 Maastricht agreements modified the Cap tools and mechanisms.

The main objectives of the 1992 CAP radical reform were the following:
- to increase the European Union farmers’ competitiveness on both domestic and export markets;
- to bring the agricultural production to the level of the market demand;
- to encourage farmers not to abandon their land and villages;
- to protect the environment and develop the natural potential of the villages.

To attain these objectives, especially those that concern the free market and competitiveness, the agricultural policy mechanism were changed as follows:
- the guaranteed domestic prices were reduced and replaced with direct aid payments;
- an optional withdrawal of several land areas from the cultivated areas;
- reduced grants and export grants;
- reduced budgetary costs etc.

The mechanisms that aimed at achieving the objectives contained in the 1992 CAP reform were approached in a new way, i.e. a new perspective of managing agricultural produce by reducing the surplus products supply.

In 1977, the average balance of the grants for a farm was 8,120 ECU, which represented 47.4% of the income per family farm.

The occupied population in agriculture decreased from 5% in 1997 to 4.2% in 2001.

The 1999-2003 period was marked by Agenda 2000, a new stage of the CAP reform in which the stress laid upon rural development (CAP’s second pillar) and competitive multifunctional agriculture.

Agenda 2000 adopted the general framework for new states that were to adhere to the European Union, according to the enlargement decided upon at Copenhagen in December 2000 and carried out for ten states in May 2004. Romania and Bulgaria are to adhere to EU in 2007.

The reform measures included in Agenda 2000 and the adjustments made by Mid Term Review in 2002 are based on three major areas:
1. to update the European model of agriculture, by orienting agriculture and the rural environment towards sustainable development and increasing competitiveness with a view to a free market.
2. to narrow the gaps in wealth and economic prospects between regions, with reference to applicant countries.
3. to improve the management of the budgetary resources and honour the priorities for 2000-2006.

The essence of the reform lies in orienting agriculture and the rural area to sustainable development. The reform measures aim at the following:
- to strengthen agricultural produce competitiveness on domestic and worlds markets;
- to improve food safety and quality;
- to ensure social balance that provides stable agricultural incomes and new income sources;
- to integrate agriculture, the environment and animal health and welfare by decoupling production payments, creating a single income payment scheme per farm. Direct payments will be conditional on the respect of 18 standards regarding food safety, environment, animal health and welfare and labour safety; direct payments will be reduced in favour of smaller farms development;
- rural development;
- to improve, simplify and decentralise agricultural legislation and application;
- the agricultural budget provides that in order to apply Agenda 2000 a financial framework of about 40.42 billion euro per year is required (in constant 1999 prices), excluding rural development and veterinary measures.

2. THE NEW STAGE OF CAP REFORM 2004-2013

Following the proposal that the European Commission brought forth on January 23rd 2003, the Agriculture Ministers came to an agreement concerning CAP reform in several stages.

Generally, the new reform measures aim at creating a stable framework for agricultural policy with a view to European Union enlargement with ten states and another two states in the future. Sustainable agricultural development is pursued by extending the European model of agriculture.

Of the key elements of the new reform that applies both to the old and the new member states, we shall deal only with the single payment
scheme per farm and the conditioning rules, which represent a new aspect of the CAP.

The Single Payment Scheme per farm will replace the current direct payments gradually, from 2005 to 2007, for the EU member states. Until the new mechanism is started (2007), both the decoupled single payment and the uncoupled direct payments or payments only partially decoupled from production will be used.

In the new payment system, the sums will be calculated based on the areas and the production levels of 2000-2002 for all member states. The single payment per farm will depend on the number of eligible hectares and the entitlements can be transferred between farmers belonging to the same state, with or without land.

The eligible hectare declared by every farmer to obtain payments through the single aid scheme can consist of any arable land category, except the areas cultivated with permanent crops, fruits, vegetables and potatoes.

The cross-compliance conditions are a system is based on trust that requires strict compliance with the rules so that farmers may receive the requested aid. Conditionality implies the compliance with a list of priorities that includes 18 European standards on environment protection, food safety and animal health and welfare. Non-compliance with these standards will lead to sanctions applied to farmers besides single payment cuts. The compliance with the 18 standards is checked through the Integrated Administration and Control System created in every member state. The European Commission will set the indicators for every legal obligation concerning cross-compliance.

3. ROMANIAN AGRICULTURE AND THE NEW CAP REFORMS

1) Romanian agriculture is far from being compatible with the community farm structures and the whole of Common Market Organisation requirements. Changing the current production structures after Romania’s adhering to the EU will be a great shock for the following reasons:
   - in 2002, the contribution of agriculture in gross added value was 12.7% in Romania and 2.0% in the EU;
- the share of the occupied population in agriculture is 36.3% in Romania and 4.2% in EU-15;

2) The economic efficiency of using the land in Romania is far below the EU level:
- the average productions per hectare for the main crops (2001-2003 average) in Romania were:
  - wheat: 2,128 kg/ha – 33.3% of the EU level;
  - barley: 2,212 kg/ha – 49.3% of the EU level;
  - maize: 2,197 kg/ha – 33.4% of the EU level;
  - sunflower: 1,134 kg/ha – 68.7% of the EU level;
  - potatoes: 14,257 kg/ha – 40.0% of the EU level etc;
- in 2001, the agricultural production in euros per hectare was 718 euro/ha in Romania and 2,247 euro/ha in the EU (1:3.12 ratio);
- in 2001, the gross added value per ha was 385 euro in Romania and 1,180 euro in the European Union (1:3.1 ratio).

3) The dynamics of the economic efficiency of using the arable land in Romania has decreased; the decreasing trend has been registered both in the gross added value (92.7% in 2000 from 100% in 1989) and the net efficiency, which reached only 82.1% of the 1989 reference level.

4) At the end of 2001, labour productivity in Romanian agriculture was 3,061 euro per capita, while in the European Union it reached 42,924 euro per capita (1:14.03 ratio).

5) At the end of 2000, the dynamics of labour productivity in Romania reached only 80.5% of the 1990 level. The decreasing tendency was also registered in 1995-1999.

6) The agricultural produce market in Romania is still non-functional.

The elimination or at least the narrowing of the mentioned gaps and those that derive from them until Romania adheres to the European Union is the imperative demand that will guide all actions to be performed until 2007.
4. PERSPECTIVES OF FINANCIAL SUPPORT FOR ROMANIAN AGRICULTURE AFTER ROMANIA’S ADHERING TO THE EUROPEAN UNION

Following the negotiations with the European Union, the sums Romania obtained for agriculture and rural development in 2007-2009 reach 4.721 billion euro, of which 3,921 billion will go to CAP mechanisms and rural development (the Guarantee Section of the European Agricultural Guidance and Guarantee Fund - EAGGF), while 0.8 billion euro will finance projects of the structural funds (the Guidance Section of EAGGF).

Like in the ten states that have become members of the EU in 2004, direct payments will be introduced in a period of ten years: 25% in 2007, 30% in 2008, 35% in 2009, 40% in 2010; a 10% increase will follow until 2016, when the level of the EU-15 member states has been reached.

The 4,721 billion euro will be distributed as follows:
- 881 million euro (18.7%) for agriculture, under the form of direct payments;
- 732 million euro (15.5%) for market measures;
- 2,308 plus 800 million euro (65.8%) for rural development.

The 2007-2009 financial support is guided mainly towards rural development and not agriculture, as diversifying activities in the rural areas is more important and useful than encouraging agricultural activities as a priority.

The distribution system is well adapted to the level of development and rural economy in EU-15, but not to Romania’s level. Our country faces the risk of staying at a far lower stage than the Western-European countries. It is for this reason that a considerable national investment effort is needed to complete the financial help from the EU.

It should be said that the gradual introduction of direct payments as a share of what the 15 EU members states receive is a discriminatory measure that for ten years will increase the gap between Romanian and Western-European agriculture, instead of narrowing it.
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THE NECESSITY TO IMPROVE THE AGRICULTURAL CREDIT

NEVOIA DE PERFECŢIONARE A CREDITULUI AGRICOL

V. GOŞA∗, T. BERAR∗∗

For a number of reasons that should be eliminated, agricultural credit for production has not proved to be a valid tool to support agriculture. As the Agricultural Credit Act for Investments has not been elaborated yet, a precarious state of the material supplies is maintained in agriculture.

Key-words: credit, interest, credit terms, reimbursement system

The following aspects have been revealed on analysing the general evolution of the credit in Romania from January 2000 to December 2003:

Table 1

<table>
<thead>
<tr>
<th>SPECIFICATION</th>
<th>January 2000</th>
<th>December 2003</th>
<th>Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total amounts of credits, of which:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Industry</td>
<td>Billion lei</td>
<td>60,828</td>
<td>342,981</td>
</tr>
<tr>
<td>%</td>
<td>%</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Services</td>
<td>Billion lei</td>
<td>35,025</td>
<td>142,899</td>
</tr>
<tr>
<td>%</td>
<td>%</td>
<td>57.6</td>
<td>41.7</td>
</tr>
<tr>
<td>Construction</td>
<td>Billion lei</td>
<td>19,304</td>
<td>129,038</td>
</tr>
<tr>
<td>%</td>
<td>%</td>
<td>31.7</td>
<td>37.6</td>
</tr>
<tr>
<td>Agriculture, silviculture, fish-growing</td>
<td>Billion lei</td>
<td>2,467</td>
<td>14,263</td>
</tr>
<tr>
<td>%</td>
<td>%</td>
<td>4.1</td>
<td>4.2</td>
</tr>
<tr>
<td>Activities of financial institutions, banks and retirement funds</td>
<td>Billion lei</td>
<td>254</td>
<td>13,932</td>
</tr>
<tr>
<td>%</td>
<td>%</td>
<td>0.9</td>
<td>4.1</td>
</tr>
<tr>
<td>Public administration, education, healthcare</td>
<td>Billion lei</td>
<td>503</td>
<td>14,108</td>
</tr>
<tr>
<td>%</td>
<td>%</td>
<td>0.9</td>
<td>4.1</td>
</tr>
<tr>
<td>Natural persons and personal households</td>
<td>Billion lei</td>
<td>222</td>
<td>18,003</td>
</tr>
<tr>
<td>%</td>
<td>%</td>
<td>0.3</td>
<td>5.2</td>
</tr>
</tbody>
</table>

Source: Romanian National Bank annual report, 2003

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The amount of credit in Romania increased 5.6 times, from 60,828 billion lei in 2000 to 342,981 billion lei in 2003. However, the credit for agriculture, silviculture and fish growing increased only 3.1 times, from 3,055 billion lei to 10,739 billion lei. The rate is much lower than in other economic sectors: services – 6.7, industry – 4.1, construction – 4.2 etc.

Table 2 shows the results of the comparison between the contribution to the gross added value (GAV) of the three main sectors (industry and construction, agriculture and services) and their credit financing level.

**The comparison between GAV of the three main sectors and their credit financing level**

<table>
<thead>
<tr>
<th>Specification</th>
<th>Industry and construction</th>
<th>Services</th>
<th>Agriculture</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contributions to GAV (%)</td>
<td>37.9</td>
<td>49.4</td>
<td>12.7</td>
</tr>
<tr>
<td>Credit weight (%)</td>
<td>52.9</td>
<td>43.5</td>
<td>3.6</td>
</tr>
<tr>
<td>Deviations</td>
<td>+15</td>
<td>-5.9</td>
<td>-9.1</td>
</tr>
</tbody>
</table>

Although in 2002 agriculture, silviculture and fish growing contributed 12.7% to GAV, they had only 3.6% of the credit amount, whereas industry had 52.9% of the credit amount for a contribution of 37.9%. The financing level of agriculture was obviously lower than that of industry and services.

For a number of reasons, the Agricultural Credit Act for Production 150/19.04.2003, which came into force only in 2004, has not brought any significant changes for agriculture. According to it, the budget allocation was not to exceed 30% of the credit used for the destinations it stipulated.

As stipulated in Government Decision 981/2003, the farmers (agricultural producers) that took a production credit were to receive (in 2004) a 15% budget allocation to cultivate and harvest sun-flower, soy, flax, fibre hemp and sugar beet crops; they were also to receive only 10% for wheat, rye and barley crops, orchard and vineyard cultivation and crops,
chicken and poultry, piglets and young sheep and for their own production of chicken, piglets, young sheep and cattle.

The same 10% budget allocation of the total amounts of credit is given to the agricultural credit for supplies, feedingstuffs processing, medicines and medical treatment for animals, running costs for maintaining animal buildings, tools and equipment.

No budget allocations are given for credits for maize and potato crops.

**Terms that concern budget allocations:**

- to respect the destinations of the production agricultural credit that are set annually in the normative acts (government decisions) elaborated at the initiative of the Ministry of Agriculture; this does not make the crediting operations stable and safe;

- to reimburse the credit and the interest rates in due time, without delay. This provision causes difficulties because agricultural production has a seasonal character and it requires financial resources all along the crediting period, not only at harvest times or when cashing the production value;

- the farmers who take credit form the credit cooperatives do not benefit from the provisions of Act 150/2003;

- although the law provides that the agricultural produce integrators should receive budget allocations, they have been excluded from them;

- the collateral for agricultural credit can consist almost exclusively of buildings (sometimes technologically advanced equipment), but never the production to be obtained;

- the budget allocations will be given only after the credit and the interest rates have been paid completely and in due time; it is not possible to reimburse the allocation directly to the crediting bank to cover the reimbursement or interest rates at least partially.

For 2005 the amount for agricultural production credit is only 150 billion lei, which corresponds to a total credit amount of about 100 billion lei, an insignificant sum for Romania’s general agriculture.

The following measures should be taken in order to increase the use of the agricultural credit:

- the budget allocations and their terms should be valid longer, so that farmers may have a longer period to carry out their plans;
- the terms of reimbursement and interest rate payment should be renegotiated so that both the reimbursement and the interest rate can be paid only once, when they fall in;
- the credit unions should also be allowed to credit, provided they observe Law 150/2003; credit unions are much better represented in the rural areas and their terms are more flexible;
- the budget allocations should also be paid during the credit period, so that at least part of the reimbursement and interest rates can be covered;
- the tabulation procedures should be supported from budget resources, in order to meet the basic conditions that banks require when the collateral is farmland;
- to conceive and elaborate the Agricultural Credit Act for Investments which allows the farms to acquire modern technological equipment.

The above measures play a special role in view of the direct payments that will be started in 2007. This complies with the new financial support methods for agriculture that are included in the direct payment system of the European Union.

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AGRICULTURAL CONSULTANCY THROUGH
EXPERT SYSTEMS

CONSULANȚA AGRICOLĂ PRIN INTERMEDIUL UNUI
SISTEM EXPERT

A. COJOCARIU*, A. MUNTEANU*
CRISTINA OFELIA SOFRAN*

The paper points out the increasing importance of computers in all economical, industrial and agricultural fields through the intelligent system’s usage that is a revolutionary way to provide answers to a lot of issues human cannot answer or humans would be subjective on. Expert systems will be insisted on as they are the most representative intelligent systems.

Key words: human, system, expert system, consultancy

Many farmers and agricultural groups need to consult with experts upon their growing problems or agronomic queries. They always encounter problems that require direct access to expert advice that you can turn into profit.

Agricultural consultants are usually involved in activities such as carrying out analysis, preparing reports and submissions, developing budgets, and working with other consultants from different specialized fields to complete projects.

Areas of agricultural consultancy may include:
- Financial Management
- Business Planning
- Animal Nutrition
- Herd Improvement
- Soil Management and Pasture Growth
- Genetics/Breeding

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Nowadays intelligent systems represent the top of informational technology, having a series of artificial intelligence specific techniques, like neuronal networks, genetic algorithms, expert systems, fuzzy systems and hybrid systems, these representing some means of optimum display of activities. Expert systems are maybe the most important type of intelligent system because this technology although is also the oldest of them, is a very efficient one especially in the case of rule based expert systems.

Regarding the expert systems characteristics, according to specialist D.A. Waterman, they are shown in Figure no. 2.

Examination is the main characteristic of an expert system and implies not only the capacity of solving a problem but also accomplishing this in the quickest time possible, time that should be less than the time a human expert requires for the same job. Examination also implies a very solid knowledge base regarding that very domain.
The system’s depth refers to the extension capacity of knowledge by inferring new elements. In order to solve real problems, the expert system will have to prove depth in solving complex and difficult problems.

Self knowledge is a characteristic of those expert systems that own metaknowledge. It involves more than explaining capacity, it foresees the future expert systems that will be able to reformulate their inferential strategies for operating more efficient in order to derive new knowledge from its own experience. The goal of developing this characteristic is that expert systems will be able to teach themselves, this way approaching more and more to human experts.

To these characteristics there will be added some more, in case of expert systems developed for companies use: self organizing and restructuring the knowledge base and the relations between them by automatically activation in critical factors conditions and specific intelligent procedures for financial-economic analysis and audit activities.

In the period of intelligent systems, executive management requires more time because of strategies and of the ways of integrating the operations, but it will gain time at operation control, assured by integrated expert systems.
The mentioned characteristics of expert systems lead this technology as a new method of productivity growth due to its capabilities of presenting safety and required experience for their use in intelligent works.

After establishing the expert system’s characteristics, it is proper to discuss their architecture, so we understand the way of accomplishing the characteristics.

The main parts of an expert system are as shown in Figure no 3. the following:
- knowledge base
- inference engine
- dialogue interface
- knowledge acquisition module
- explanation module (justifier)

![Figure no. 3. Expert system’s basic structure](image)

The knowledge base is used to save all the knowledge parts specific to a certain application field and contains the examination that was acquired from human experts. When knowledge is memorized as production rules, the knowledge base contains two parts: a base of facts and a base of rules, and the inference engine is also called the scheduler.

The inference engine is a program containing control knowledge that uses the knowledge base, in order to find solution to solve the problem. The inference engine consists in a knowledge base administration system and a symbolic inference processor. The knowledge base administration system will perform automatically organizing operations, control and knowledge update, initiates search for relevance control upon the reasoning paths the symbolic inference processor is working on. The symbolic inference
provides a process that shows the reasoning paths. When the knowledge and
dates from the real world are imprecise there are inference methods that use
different certainty levels for the inferential mechanism to work properly.
The inference engine structure is independent from the knowledge base and
is exactly the same for similar problems. The inference is based upon
“modus ponens”, a deductive reasoning logical method, that is shown
below:

\[
\begin{align*}
\text{If } A &= \text{True} \\
\text{And } A &\Rightarrow B \\
\text{Then } B &= \text{True}
\end{align*}
\]

The dialog interface is a critical part of the expert system and owns a
language and knowledge that was acquired from the human experts. This
dialogue interface will allow users to access the facts and knowledge
contained by the base. This interface should be as natural and friendly as
possible and should use a language close to the natural language, using text,
graphic and reports.

The knowledge acquisition module helps the expert user to share
knowledge and update the system’s knowledge base.

Expert systems are being used successfully in all fields and
successfully replacing or supporting the human experts by eliminating
subjectiveness. Still, it is very important for the expert system to be
appropriately tested, verified and validated in order to avoid any failures. In
the case of expert systems, verification, validation and testing should be
made more carefully and minutely than in the case of usual information
systems.

Agricultural consultancy through expert systems would be very
helpful and time saving, but would also offer some prompt answers, advices
and solutions to the problem the agricultural producers or farmers would
require.
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INTEGRATED INFORMATION SYSTEMS - A WAY OF ENSURING AN EFFICIENT WORK OF THE AGRICULTURAL MANAGEMENT SYSTEM

SISTEMELE INFORMATICE INTEGRATE, MODALITATE DE ASIGURARE A FUNCȚIONĂRIII EFICIENTE A SISTEMULUI MANAGERIAL AGRICOL

A. COJOCARIU*

Given all the pros and cons of the integrated computer systems implication in agriculture, these have proven useful as a decision-making informational system, able to fulfill all informational requests of the management and to work correctly at any organizational level. It is agreed on that independent of the current organization level of the agriculture, information is a vital resource to the whole activity. Correctness and efficiency in information handling, given the current conditions, can be achieved only by using information systems that need to be implemented being fully aware of the agricultural production details and other connected activities.

Key words: information system, management, agriculture, efficiency

Management systems are opened, complex systems, defined by apart force: the organization. Following this lead, the agricultural company is also an opened system because the relationships with the surrounding environment are expressed in continuous exchanges of various resources, so being established a recurring process of incoming and outgoing actions, finally everything being transformed to money. The maintenance of this cycle assures the continuity of the system. With the expansion of the objectives and purposes in an agricultural company, this is growing wider and includes a series of materially, informationally or energetically interconnected subsystems, also with a reverse connection feature. The development of such a subsystem in solving management problems will start from a clear understanding of the whole area of situations which can occur for the company. This understanding can consist of an integrated

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information system that proves itself very useful in decision-making, helping the management of the company.

Given its current stage of evolution, the agriculture is defined by a hierarchy of systems of various complexity and organization level, systems to which management processes are a must. These processes, though, do not use methods and modern scientific procedures at any level, that can guarantee the most accurate decisions for objective achievement. The management process should adapt and transpose these concrete methods and techniques to the practical necessities. At the same time, some achievements cannot be reached unless the informational support has a certain quality. Because of this we consider the process of informatization to be indispensable. The implication of informatics in the management process can be related to:

- the capability of practically storing an unlimited amount of data, thus assuring an outstanding informational basis;
- the means of application of large economical-mathematical models that normally would be realized by laborious calculus;
- the speed of data processing operations and of optimization computations that allow real-time decision-making;
- the possibility of simulating agricultural processes and events;
- the computer handling of the activities within a system (by any agricultural system hierarchy level).

The development of an integrated computer system needs to meet some conditions:

- to have a database which will group data among all sources, both internal and external for the system which the application will be created, and which can be accessed from all of the components within the system;
- the data/information should be available to all of the pieces of the condensed system;
- to offer a easy to use database management system;
- to be equipped with an adequate quantity of computation capability, to have an electronic computer in each node where data processing is needed, or a tele-transmission terminal if the node is only a input/output point for the data/information;
- to ease the man-machine direct relationship;
- to offer software components that can simplify the optimal usage of both physical and logical resources;
- to allow an unity between the functional modules of the given system, and also a connection to other systems.

The integrated information system will still claim for human effort, though differently distributed. The manager will have to perfect himself, to gain necessary knowledge in communicating with the computer. By this, it should be well-understood that the human resource using the computer needs not to percept complex programming languages, economical and mathematical methods and techniques used by the computer applications. It is enough just to be able to “feed” data to the computer, but more important, to be able to request answers from the computer. In other words, the user needs to break that psychological barrier implied alongside this black-box that is the computer. The main reason for the computer phobia is the fact that those who had an expecting and immobile attitude are still deceived whenever an effort is needed, and that the professional responsibility doesn’t disappear completely. At the same time, as there are more or less restructured problems in the agricultural domain, problems to which the managers hope for distinct and unique solutions, they will be astonished to realize that eventually the decisional responsibility will still be theirs, the computer only creating a more precise discrimination of the existent possibilities. Also, because there are complex operations to be done, by applying multiple algorithms that are unknown to the manager, the computer utilization implies the raising of the decision-making stress levels, because of the inability to understand what exactly happens with the input data and how were the final results obtained, fact that even lead to lack of trust for the correctness of operations. This opposition against changes can be eliminated only if the human resource solely can balance the received advantages.

The integrated information system realized for the agricultural domain must be conceived as a “modeler” that can solve all problems given the input data, starting from the resource assurance and ending with the turning to account. There is, however, the debate based on the “intelligence” of this “modeler”. In this case, the answer is singular: this depends on the “teaching” level of the computer, on the implied software, mentioning that the human resource cannot be replaced by the computer; still the computer offers the most complex informational support for decision-making.
Even if, generally speaking, there is a growth in trusting computers, this driving directly to sustained effort to transfer new informational technologies, in the agricultural domain there is no such tendency, especially from the producers. This is due to the current stage of the agriculture, the income/expenses difference, and nevertheless it is due to the reticence of the ones working in this domain. Studies have pointed that specialized software is lacking almost completely, the computer being used mostly in higher hierarchical levels (agricultural directions, ministries). Comparing studies, in the USA, starting with 1990, the quantity of computers used by the producers knows an exponential growth. In 2001, 55% of the ranches were equipped with computers, while in 1999 the amount was only 47% and in 1997, only 38%.

There are strong beliefs that the remedy of this situation is absolutely necessary. A primary stage of evolution might be defined by the answers to the following problems:

- identifying the placement of the Romanian agriculture on the evolution scale by comparing it against the stage of countries that already surpassed this kind of period;
- identifying the financial resources and possibilities of equipment;
- how many producers actually use the computer and in what way;
- how content are they by the computer’s giving;
- what are the future inclinations and implies of software evolution at an agricultural level.

REFERENCE

Agriculture at Satchinez (District of Timiș) has been subjected to structural changes due to the change in land ownership. There are nowadays both subsistence agricultural forms and market agricultural systems, economically profitable. The contribution of these agricultural systems to the development of Satchinez is different and interesting at the same time, as it has both subsistence and development roles in the community.

**Key words:** agricultural systems, sustainable agriculture, rural development, Satchinez area

**INTRODUCTION**

One of the main resources within a rural community is land, and agriculture as social and economic activity can point out this resource and develop economic values necessary to the social component part.

After 1990, agriculture in the Satchinez area was subjected to structural changes due to the change in land ownership. Private ownership of land is predominant. Agricultural land and arable one in particular having been crumbled to pieces, resulted in numerous small agricultural exploitations. The low economic power of owners and limited knowledge in the field, life expectancy, and limited development resulted in a large number of subsistence agricultural systems.

While there are changes of the ownership form, they have developed several joint stock companies and commercial companies that have valorised at another level soil resources in the area, developing performing agricultural systems, with commercial character and viable economically,
The different position of the social component to this resource and economic activity led to vast changes in the ownership and use of agricultural lands and, implicitly, in their valorising as resource for the rural development of Satchinez.

MATERIAL AND METHOD

Assessing the potential of agricultural systems within Satchinez was carried out on the ground of a study, documentation, and research activity within Satchinez.

To do so, we monitored the evolution of ownership forms on land, type of agricultural exploitations and of agricultural systems in the area. We also analysed problems concerning crop structure, harvest level, as well as some market elements, i.e. valorising production.

RESULTS AND DISCUSSION

The land fund of Satchinez totals 11,090 ha, very diversified from the point of view of use categories (Table 1).

Within the village and the non-agricultural land, water and marshes category, to note the “Mlaștinile Satchinez” nature reserve that spreads over about 122 ha, located in the Ier River valley, 25 km north-west from Timișoara. This area has a status of protected area, as it has been proclaimed ornithological nature reserve.

Agriculture viewed as man’s control on food production, is a fundamental social activity on which depends the satisfying of man’s vital demands.

Within the Satchinez area, arable land is particularly favourable to agricultural crops, and allows the cultivation of a wide range of crops. Despite all this, limited speciality knowledge, difficulties in valorising on the market agricultural products, and particularly limited economic power resulted in larger crops of grains (wheat, rye), maize, sunflower, and in smaller crops of potato, vegetables, and sugar beet, the last one being given up because of valorising reasons.

Within individual farms, inhabitants also had a limited number of livestock, which valorised part of the plant production.

Agricultural systems developed by the inhabitants in most cases had
a subsistence character, but we cannot speak of economic performances.

Table 1.

Land fund of Satchinez and its distribution per use categories (2004)

<table>
<thead>
<tr>
<th>No.</th>
<th>Use category</th>
<th>Area (ha)</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Total area</td>
<td>11090</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td>Total agricultural land</td>
<td>9950.92</td>
<td>90</td>
</tr>
<tr>
<td></td>
<td>of which</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Arable area</td>
<td>8968</td>
<td>81</td>
</tr>
<tr>
<td>2</td>
<td>Total pastures</td>
<td>626.66</td>
<td>5.6</td>
</tr>
<tr>
<td>3</td>
<td>Hayfields</td>
<td>346.41</td>
<td>3.1</td>
</tr>
<tr>
<td>4</td>
<td>Arable in pasture</td>
<td>85.47</td>
<td>0.8</td>
</tr>
<tr>
<td>5</td>
<td>Orchards</td>
<td>6.94</td>
<td>0.6</td>
</tr>
<tr>
<td>6</td>
<td>Vineyard</td>
<td>2.38</td>
<td>0.2</td>
</tr>
<tr>
<td>B</td>
<td>Total non-agricultural land</td>
<td>1139.78</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>of which</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Waters and marches</td>
<td>522.80</td>
<td>4.6</td>
</tr>
<tr>
<td>2</td>
<td>Yards and buildings</td>
<td>263.19</td>
<td>2.4</td>
</tr>
<tr>
<td>3</td>
<td>Roads and railways</td>
<td>249.63</td>
<td>2.1</td>
</tr>
<tr>
<td>4</td>
<td>Non-productive lands</td>
<td>90.88</td>
<td>0.8</td>
</tr>
<tr>
<td>5</td>
<td>Forests and bushes</td>
<td>13.28</td>
<td>1.2</td>
</tr>
</tbody>
</table>

Sources: Anuarul Statistic al județului Timiș, DGAIA Timiș

In time, local conditions of exploitation associated with other problems of the transition that deeply affected this branch, led to a change of attitude of the villagers to agriculture, many of them giving up working the land. Part of the villagers sold their lands or leased them to associations that appeared in time (Table 2).

Despite all this, there are still people that work the land in the individual system with oscillations of productivity and profitability from year to year.

Purchasing land from the villagers who, because of lack of equipment and of capital, only managed to have subsistence agricultural systems with minimal external investments and low or inexistent profitability did the constitution of these companies. Part of these people work seasonally or permanently for agricultural companies established meantime.
Agricultural companies within Satchinez

<table>
<thead>
<tr>
<th>No.</th>
<th>Commercial company</th>
<th>Area (ha)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>S.A. Paul Chinezu</td>
<td>982</td>
</tr>
<tr>
<td>2</td>
<td>S.A. Înfrântirea</td>
<td>700</td>
</tr>
<tr>
<td>3</td>
<td>S.A. Egreta</td>
<td>130</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>1812</strong></td>
</tr>
</tbody>
</table>

**Joint stock company**

| 1   | S.C. Agrimondo 1025.00     |           |
| 2   | S.C. Beregsău Comagra 1001.00 |       |
| 3   | S.C. Comera 930.00         |           |
| 4   | S.C. Marsann Line S.R.L. 482.63 |  |
| 5   | S.C. BHM Agroland 428.70   |           |
| 6   | S.C. Bilda S.R.L 254.00    |           |
| 7   | S.C. Bet Daliago 136.50    |           |
| 8   | S.C. Agropeta S.R.L. 102.27 |         |
| 9   | S.C. Dana Company 72.00    |           |
|     | **Total**                  | **4432.10** |

**TOTAL GENERAL 6244.10**

Sources: Anuarul Statistic al județului Timiș, DGAIA Timiș

There are also in the village several types of agricultural exploitations that develop agricultural systems with different performances: population’s farms, the most numerous (840), 15 family associations, and 12 private capital commercial companies (Table 3).

Crop structure also oscillated in time, and is represented nowadays by the following crops (average areas): wheat and rye – about 1700 ha, grain maize – 3120 ha, sunflower – 800 ha, potato – 100 ha, vegetables – 100 ha, fruit trees – 7 ha, vine – 2.3 ha, pastures – 626 ha, and hayfields – 346 ha. Average productions in most crops are pretty modest for the potential of the arable land in the area.

Cattle, sheep, swine, and poultry with variable numbers within private farms complete the landscape.
Table 3.
Structure of agricultural exploitation types after the ownership form operating within Satchinez

<table>
<thead>
<tr>
<th>No.</th>
<th>Type of agricultural exploitation</th>
<th>Number</th>
<th>Agricultural area (thousands of ha)</th>
<th>Average area (ha)</th>
<th>Share of agricultural area</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Private farms</td>
<td>840</td>
<td>3.7</td>
<td>4.4</td>
<td>36.7</td>
</tr>
<tr>
<td>2</td>
<td>Simple family associations</td>
<td>15</td>
<td>0.6</td>
<td>40</td>
<td>1.9</td>
</tr>
<tr>
<td>3</td>
<td>Private capital commercial companies</td>
<td>12</td>
<td>6.0</td>
<td>369</td>
<td>61.4</td>
</tr>
</tbody>
</table>

Sources: Anuarul Statistic al județului Timiș, DGAIA Timiș

As for the destination of the production, an important share belongs to family consumption or is valorised through the livestock, the rest being valorised on the markets in Timișoara.

The main problem in valorising agricultural production is the lack of organised distribution channels. There are no organised chains for the main agricultural products and there is no chance for a vertical integration in the chains. As for supply with seeds, chemical fertilisers, and pesticides, there is no organised market, this being the domain of private persons and of their trade companies.

CONCLUSIONS

After 1990, agriculture in Satchinez has undergone structural changes due to the change of land ownership and because of the problems Romania’s agriculture had to face.

Limited economic and technical opportunities allowed the development of subsistence agricultural systems that could not ensure a substantial participation of this branch in the rural development of the village.

New agricultural exploitations ensure high economic performance
agricultural systems with market character, which will allow in time a higher share of this activity in the rural development of the village, the main source for the villagers.

An important measure in this direction would be distribution canals, with chains organised for the main agricultural product categories. It is also imperative to ensure agricultural producers with quality materials (seeds, fertilisers, pesticides, etc.) at a competitive price to increase agricultural system performances.

Last but not least, agro-tourism could develop particularly due to the nature reserve.

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Profitability on agricultural firms can be ensured firstly by scientifically rationalising economic resource consumption and by increasing the utility degree of agricultural products. In this context there is a correlation between production and market, where impact factors have, as a rule, quite different action directions. There is an excessive trend to the allotment and consumption of resources and the relative variation of prices asks for a rigorous analysis of unit costs by specific methods.

**Key words:** unit cost, iteration and determination index method, and impact factors.

An economy based on competition asks firms for an efficient management that should focus short-term by establishing some selective firm policies and long-term by introducing strategies depending on the context of the action of external factors.

A determining role in achieving economic and financial performances within an agricultural firm is unit cost corresponding to the products obtained permanently correlated with sale price.

Monitoring total expenses corresponding to production in a modern economy does not suppose a unique control, regulation, and operating tool, but several other ways such as resizing the firm and modernising it lead to the improvement of financial performances of economic organisations in the future. As a consequence, analysing unit costs is a necessity through which we aim at monitoring in time the evolution of unit costs per product, of the factors that influence increase or decrease of additional costs, and the structure of unit costs per cost elements.

Analysing the factors involved by product costs can do selecting the factors that produce changes in the size of unit costs.
Factor analysis of unit costs can be done in different periods:
1) the achieved plan period (previous year – current year);
2) 1-5 year period;

1) **Analysing unit cost during the achieved plan period**

Technical and economic information necessary to the analysis are supplied by: technical and informational data, accounting data, and statistical data. This information can be synthesised, as a rule, as follows:

<table>
<thead>
<tr>
<th>Technical and economic information</th>
<th>Symbol</th>
<th>Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area (ha)</td>
<td>S</td>
<td>S₀, S₁</td>
</tr>
<tr>
<td>Average number (heads)</td>
<td>Ef</td>
<td>Ef₀, Ef₁</td>
</tr>
<tr>
<td>Average production (t/ha, hl/head)</td>
<td>q</td>
<td>q₀, q₁</td>
</tr>
<tr>
<td>Total expenses (rol)</td>
<td>Chₜ</td>
<td>Chₜ₀, Chₜ₁</td>
</tr>
<tr>
<td>Unit cost (rol/kg, rol/l)</td>
<td>cₜ</td>
<td>cₜ₀, cₜ₁</td>
</tr>
</tbody>
</table>

The following mathematical relations give the economic model depending on the kind of information:

\[ cₜ = \frac{Chₜ}{Sq} \quad ; \quad cₜ = \frac{Chₜ}{Efq} \]

The fund analysis consists of:

a) The calculus of absolute and relative abatement of unit cost.

\[ \Delta cₜ = cₜ₁ - cₜ₀ \quad \text{or} \quad \Delta cₜ\% = \frac{cₜ₁ - cₜ₀}{cₜ₀} \times 100 \], where:

\[ \Delta cₜ \quad - \text{absolute abatement}; \quad \Delta cₜ\% \quad - \text{relative abatement}; \]

\[ cₜ₀ = \frac{Chₜ₀}{S₀q₀} \quad - \text{at the } T₀ \text{ moment (plan, previous year)}; \]

\[ cₜ₁ = \frac{Chₜ₁}{S₁q₁} \quad - \text{at the } T₁ \text{ moment (achieved, current year)}; \]

b) the calculus of the influence of the factors area, average production, and total expenses on absolute or relative abatement.

b₁) influence of the factor area;

\[ \Delta cₜ(S) = \frac{Chₜ₁}{S₁q₁} - \frac{Chₜ₀}{S₀q₀} \quad \text{or} \quad \Delta cₜ(S)\% = \frac{\Delta cₜ(S)}{cₜ₀} \times 100 \]
b2) influence of the factor average production;  
\[ \Delta c_u(q) = \frac{Ch_{r_1}}{S_1q_1} - \frac{Ch_{r_0}}{S_1q_0} \quad \text{or} \quad \Delta c_u(q)\% = \frac{\Delta c_u(q)}{c_{u0}} \times 100; \]

b3) influence of the factor total expenses;  
\[ \Delta c_u(Ch_T) = \frac{Ch_{r_1}}{S_1q_1} - \frac{Ch_{r_0}}{S_1q_1} \quad \text{or} \quad \Delta c_u(Ch_T)\% = \frac{\Delta c_u(Ch_T)}{c_{u0}} \times 100; \]

c) the calculus of the equality relation between the sum of influences of the factors and total and relative abatement of unit cost.  
\[ \Delta c_u(S) + \Delta c_u(q) + \Delta c_u(Ch_T) = \Delta c_u \quad \text{or} \quad \Delta c_u(S)\% + \Delta c_u(q)\% + \Delta c_u(Ch_T)\% = \Delta c_u\% \]

During the achieved plan period we can record a positive abatement, i.e. an increase of the unit cost or a negative abatement, i.e. an economy at the level of unit cost. The size of abatement and its sign depend on the influence of factors that participate in the economical and financial process.

Changes of the factors that influence the phenomenon (unit cost) during the time interval we analysed are the result of pedo-climate, technical, technological, economic, financial, commercial management, etc.

2) Analysing unit cost during the 1-5 year period.

During the achieved plan period unit cost as an economic phenomenon by analysis does not surely point out the influence of factors as it’s planning also includes several relative calculus elements.

Thus, during a period of time longer than a year (1-5 years), we analyse real unit costs that reflect the achievement of agricultural products. Economic models used in analysing unit costs on vegetal and animal farms have the form:

\[ c_u = \frac{Ch}{Q} \quad \text{or} \quad c_u = \frac{Ch}{q} \]

where: \( c_u \) – unit cost; \( Ch_T \) – total expenses at farm level; \( Q \) – total production of the crop; \( \bar{ch} \) – average expenses at crop level per ha; \( q \) – average production per ha.
The specific method in this type of analysis is the determination index method. To exemplify, we use the following model:

\[ c_u = \frac{Ch}{q}. \]

In order to analyse, we need economic information that can be presented as follows:

<table>
<thead>
<tr>
<th>Indices</th>
<th>Unit cost ((c_u))</th>
<th>Average expenses per ha or per head ((Ch))</th>
<th>Average production per ha or per head ((q))</th>
<th>Square average expenses ((ch^2))</th>
<th>Square average production ((q^2))</th>
<th>Sum of average expenses and of average production ((chq))</th>
</tr>
</thead>
<tbody>
<tr>
<td>T1</td>
<td>(c_{u1})</td>
<td>(\bar{ch}_1)</td>
<td>(\bar{q}_1)</td>
<td>(\bar{ch}_1^2)</td>
<td>(\bar{q}_1^2)</td>
<td>(ch_1\bar{q}_1)</td>
</tr>
<tr>
<td>T2</td>
<td>(c_{u2})</td>
<td>(\bar{ch}_1)</td>
<td>(\bar{q}_2)</td>
<td>(\bar{ch}_2^2)</td>
<td>(\bar{q}_2^2)</td>
<td>(ch_2\bar{q}_2)</td>
</tr>
<tr>
<td>T3</td>
<td>(c_{u3})</td>
<td>(\bar{ch}_1)</td>
<td>(\bar{q}_3)</td>
<td>(\bar{ch}_3^2)</td>
<td>(\bar{q}_3^2)</td>
<td>(ch_3\bar{q}_3)</td>
</tr>
<tr>
<td>T4</td>
<td>(c_{u4})</td>
<td>(\bar{ch}_1)</td>
<td>(\bar{q}_4)</td>
<td>(\bar{ch}_4^2)</td>
<td>(\bar{q}_4^2)</td>
<td>(ch_4\bar{q}_4)</td>
</tr>
<tr>
<td>T5</td>
<td>(c_{u5})</td>
<td>(\bar{ch}_1)</td>
<td>(\bar{q}_5)</td>
<td>(\bar{ch}_5^2)</td>
<td>(\bar{q}_5^2)</td>
<td>(ch_5\bar{q}_5)</td>
</tr>
<tr>
<td>N=5</td>
<td>(\sum c_u)</td>
<td>(\sum \bar{ch})</td>
<td>(\sum \bar{q})</td>
<td>(\sum \bar{ch}^2)</td>
<td>(\sum \bar{q}^2)</td>
<td>(\sum \bar{ch}\bar{q})</td>
</tr>
</tbody>
</table>

This information can be found in the technical and operating database and in the administration accounting.

In order to apply the determination index method we need to process information in the table above, such as:

\[ \sum c_u, \sum \bar{ch}, \sum \bar{q}, \sum \bar{ch}^2, \sum \bar{q}^2, \sum \bar{ch}\bar{q}. \]

We also calculate preliminary the arithmetic average of average expenses \((Ch)\) and of average production \((q)\) as well as dispersions, i.e. the co-dispersion of impact factors \(Ch\) and \(q\) so that we have:
Fundamental analysis of unit cost involves the determining of the following:

a) Influence of the average expense factor $\bar{Ch}$ on unit cost variation.

$$\bar{Ch}\% = \frac{S_{ch}^2}{(ch)^2} - \frac{S_{chq}^2}{(ch)(q)} \times 100$$

b) Influence of the average production factor $\bar{q}$ on the unit cost variation.

$$\bar{q}\% = \frac{S_{q}^2}{(q)^2} - \frac{S_{chq}^2}{(ch)(q)} \times 100$$

c) Equality relation between the sum of influences of the factors $\bar{Ch}$ and $\bar{q}$ and 100%.

$$\bar{Ch}\% + \bar{q}\% = 100\%$$

Interpreting analytic results means summing up the influences of the factors average expenses ($\bar{Ch}$) and average production ($\bar{q}$).

The causes that generate changes of the influence of the factors average expenses ($\bar{Ch}$) and average production ($\bar{q}$) on unit cost during the analysed period (1-5 years) have a pedo-climate, economic, technical, technological, managerial, etc. nature.
BIBLIOGRAPHY

ANALYSING PROFIT ON VEGETAL FARMS

ANALIZA PROFITULUI ÎN FERMELE VEGETALE

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Taking into account the role profit plays in enhancing the development of agricultural firms it is obvious that we need to monitor permanently and simultaneously expenses and agricultural production. So the profit generally defined as the difference between incomes and expenses does not reflect a real support in identifying the factors that influence its achievement, asking for the implementation of some specific economic models.

Key words: profit, iteration method, and influence factors.

Profit is the fundamental scope that ensures the grounds for stability and economic increase. By its constitution as a financial source it is destined to increase capital, to form reserves and different funds, to cover losses from previous years, and to distribute under the form of dividends to the shareholders (associates).

Taking into account the classification criterion, i.e. the nature of economic activity, the total profit of agricultural organisations is composed of: exploitation profit (Pfe), financial profit (Pff), and exceptional profit (Pfex).

The mathematical expression of the total profit is:

\[ P_{fT} = P_{fe} + P_{ff} + P_{fex} \]

On agricultural organisations, the basic activity is the production of material goods (plant and animal agricultural products) that result, eventually, in profit or losses.

The size of the profit thus obtained has an important share (95-99%) of the profit of the financial exercise.
This is why we need to monitor the profit both on vegetal and animal farms and to establish the factors that act on its production.

In the analysis of profit on vegetal farms there are three cases of factor impact on profit: combining area (S), average production (q), and profit per product unit (pf); combining area (S), crop structure (gs), and profit per ha (pf); combining total production per crop (Q), sale price (pv), and unit cost (cu).

1. In the first case, we have to deal with an economic model of the form:

   \[ Pf_T = \sum_{i=1}^{n} S_i q_i pf_i \]

   If we analyse the total vegetal profit (Pf_T) during cultivation … we then use the iteration method, the analysis consisting of:

   a) calculating absolute abatement of total profit (ΔPf_T). In order to do so, we need to determine total profit at the following times:

   \[ T_1 \text{(achieved): } Pf_{T1} = \sum_{i=1}^{n} S_{i1} \bar{q}_{i1} pf_{i1} \]

   \[ T_0 \text{(plan): } Pf_{T0} = \sum_{i=1}^{n} S_{i0} \bar{q}_{i0} pf_{i0} \]

   \[ ΔPf_T = ΔPf_{T1} - ΔPf_{T0} \]

   b) calculating factor impact on profit.

   \[ ΔPf_{T(S)} = \sum_{i=1}^{n} S_{i0} \bar{q}_{i0} pf_{i0} - \sum_{i=1}^{n} S_{i1} \bar{q}_{i1} pf_{i1} \]
b₂) influence of the factor average production:

\[ \Delta P_f T(\overline{q}) = \sum_{i=1}^{n} S_i \overline{q}_i pf_{i0} - \sum_{i=1}^{n} S_i \overline{q}_i pf_{i0} \]

b₃) influence of the factor profit per product:

\[ \Delta P_f T(P_f) = \sum_{i=1}^{n} S_i \overline{q}_i pf_{i1} - \sum_{i=1}^{n} S_i \overline{q}_i pf_{i0} \]

c) calculating the equality relationship between the sum of factor impacts and total abatement.

\[ \Delta P_f T(S) + \Delta P_f T(\overline{q}) + \Delta P_f T(P_f) = \Delta P_f T \]

2) In the second case, the mathematical relation existing between the phenomenon \( P_f T \) and the factors \( S, g_s, \overline{pf} \) has the following form:

\[ P_f T = S_T \sum_{j=1}^{n} g_{s_j} pf_j \], where:

\( S_T \) – total area per farm;
\( g_s \) – crop structure;
\( pf \) – profit per ha corresponding to each crop.

The analysis should be carried out during the achieved plan period in several steps:

a) determining absolute abatement of total profit.
\[ \Delta \text{Pf}_T = \Delta \text{Pf}_{T1} - \Delta \text{Pf}_{T0} \], where:

\[
\text{Pf}_{T1} = S_{T1} \sum_{i=1}^{n} g_{Si1} pf_{i1}
\]

\[
\text{Pf}_{T0} = S_{T0} \sum_{i=1}^{n} g_{Si0} pf_{i0}
\]

b) determining factor impact on total profit.

b1) influence of area:

\[
\text{Pf}_{T} = S_{T} (S) \sum_{x} g_{x} pf_{x}
\]

But: \[ \sum_{x} g_{x} pf_{x} = pf_{0} \].

where: \( pf_{0} \) - average profit of the plan per vegetal farm.

Then:

\[
\Delta \text{Pf}_{T} = S_{T1} pf_{0} - S_{T0} pf_{0} = (S_{T1} - S_{T0}) pf_{0}.
\]

b2) influence of the factor crop structure:

\[
\Delta \text{Pf}_{T} = S_{T1} \sum_{x} g_{x} pf_{x} - S_{T1} \sum_{x} g_{x} pf_{x}
\]
but: $\sum g_{s_{i1}} p_{f_{i0}} = \bar{p}_f$.

where: $\bar{p}_f$ - average profit of the plan per farm.

Then:

$$\Delta P_{fT} = S_{T1} \bar{p}_f - S_{T1} \bar{p}_f = S_{T1}(\bar{p}_f - \bar{p}_f).$$

b3) influence of the factor profit.

$$\Delta P_{fT} = S_{T1} \sum g_{s_{i1}} p_{f_{i1}} - S_{T1} \sum g_{s_{i1}} p_{f_{i0}}$$

But: $\sum g_{s_{i1}} p_{f_{i1}} = \bar{p}_f$.

where: $\bar{p}_f$ - average profit per farm.

Then:

$$\Delta P_{fT} = S_{T1} \bar{p}_f - S_{T1} \bar{p}_f = S_{T1}(\bar{p}_f - \bar{p}_f).$$

c) Calculating equality between the sum of impacts and total abatement.

$$\Delta P_{fT}(S_T) + \Delta P_{fT}(g_S) + \Delta P_{fT}(pf) = \Delta P_{fT}.$$

3) In the third case, depending on the impact factors generating the phenomenon (PfT) we get the following economic model:
Pf_T = ∑Q_i (pv_i - cu_i), where:

Q_i – production per crop;

pv – valorising price;

cu – unit cost.

Factor analysis during the achieved plan period of the total profit supposes the following operations:

a) calculus of absolute abatement of the total profit:

ΔPf_T = ΔPf_{T1} – ΔPf_{T0}

where:

Pf_{T1} = ∑Q_{i1} (pv_{i1} - cu_{i1});

Pf_{T0} = ∑Q_{i0} (pv_{i0} - cu_{i0});

b) calculus of factor impact:

b_1) influence of the factor total production.

ΔPf_T(Q) = ∑Q_{i1} (pv_{i0} - cu_{i0}) – ∑Q_{i0} (pv_{i0} - cu_{i0}) =

(∑Q_{i1}pv_{i0} - ∑Q_{i1}cu_{i0}) – (∑Q_{i0}pv_{i0} - ∑Q_{i0}cu_{i0})

b_2) influence of the factor unit cost.

ΔPf_T(cu) = ∑Q_{i1} (pv_{i0} - cu_{i1}) – ∑Q_{i1} (pv_{i0} - cu_{i0}) =

= – ∑Q_{i1}cu_{i1} + ∑Q_{i0}cu_{i0}.
b3) influence of the factor sale price.

\[ \Delta P_{fT}(pv) = \sum Q_{i1} (pv_{i1} - cu_{i1}) - \sum Q_{i0} (pv_{i0} - cu_{i0}) = \]

\[ = \sum Q_{i1} pv_{i1} - \sum Q_{i0} pv_{i0}. \]

c) calculus of the equality relationship between the sum of impacts and total abatement of the profit.

\[ \Delta P_{fT}(Q) + \Delta P_{fT}(cu) + \Delta P_{fT}(pv) = \Delta P_{fT}. \]

In all cases, after applying the iteration method, we process the changes induced by the factors involved in the analysis on increase or decrease of the total profit at farm level during achieved plan period.

Then, we identify the causes generating changes in each factor under study.

The factors area, average production and profit per product, profit per ha, structure of crop area, total production, price and unit cost positively or negatively influencing the size of total profit have technical, technological, economical, financial, pedo-climatic, commercial, etc. factors.

By combining factor impacts and the change in its size through the effect of causes we can draw conclusions and set measures for the rehabilitation of the farm.
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INCREASING EFFICIENCY OF MANAGERIAL ACTIVITY IN MOTIVATION

CREȘTEREA EFICACITĂȚII ACTIVITĂȚII MANAGERILOR ÎN REALIZAREA MOTIVĂRII

M. LUNGU*, M. R. LUNGU*, A. G. FIRU-NEGOESCU*

Motivation represents a major component of modern management; it plays a decisive role in achieving economic and financial performances within agricultural organisations. In order to increase the efficiency of managerial activity we need to know both motivation and specific motivational methods.

Key words: motivation, motivational requirements, and specific methods.

As human resources are ensured at the level of economic organisations, the fundamental problem for the management is to make motivation efficient in order to achieve economic and financial performances.

Improving elements in motivation can be found in the structure of management and can be grouped selectively into two categories:
a) requirements concerning the motivation of the employees;
b) specific techniques meant to enhance motivation.

a) In order to enhance personnel motivation we need certain motivational requirements that contribute to the profitability of the agricultural organisation. Among most important motivational requirements are:

- selecting and employing personnel that appreciate positively the image of the firm they are going to work for;
- identifying motivational activities that the personnel wants and offering them as a reward;

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- involving the personnel in research, production, and commercial activities by using such methods that are of interest (position rotation, broadening job profile, etc.);
- personalising motivations from the point of view of type, size, and approach depending on the employee format, until individualisation;
- approaching motivations, particularly economic ones, to save resources and promote long-term professional perspectives, which are based on reasonable and accessible expectancies;
- sharing explicitly labour duties, economic and financial achievement level, etc.;
- employing personnel that are fit from a professional and motivational points of view;
- combining material rewards with moral and spiritual ones;
- sharing rewards and sanctions corresponding to the real results achieved;
- awarding material and spiritual compensations at different intervals depending on needs or upon finishing programmes labour processes;
- minimising sanctions;
- awarding wanted rewards permanently to those who wait for them;
- making motivations clear to the employees, and acknowledged as proper.

The motivational process is continuously under a moral ageing as it needs to be adapted to the demands depending on the evolution of the agricultural firm and of society.

b) Among the many motivational techniques and procedures we can mention: expanding labour duties at position level, the “listen and answer” technique, the technique of oral motivational feedback.

*Expanding labour duties at position level*

Friederick Herzberg, a specialist in the field of human resources, conceived this method and it has an impact on increasing the personnel motivation to make special efforts. Expanding labour duties consists in incorporating in a position’s chart a varied and important range of duties, competences, and responsibilities to ensure the autonomy of the position.

Through this method we aim at combining equally executive actions and managerial ones so that personnel activity should also include prevision and control duties.
For this procedure to be efficient, we need to bear in mind the following: the expertise of the employees combined with their training level; the possibility for the executives to act openly in these processes and to work our organisation autonomy; introducing performing technologies in labour processes to allow labour activity intensification; a modern re-thinking of managers and practicing participative leadership.

By applying this technique, they showed that it has a major motivational impact on employees who accept multiplication of duties and monitor the results of their work with more interest. We can also notice that interpersonal relationship have other dimensions.

The “listen and answer” technique

The essence of this technique consists in openly and principally listening to the messages sent by the employees, the manager being supposed to answer as clearly and exactly as possible so that a double-sense information relationship be developed between the manager and the employees, with an aim to achieve provisioned objectives.

The French scholars J. Viallat and Y. Pellier have instituted rules that surely led to an increase of personnel’s motivation. In this respect, we can mention some of these rules: one should listen to his interlocutor until he has sent all his message; message continuity should not be interrupted; the manager should show total openness to the information he gets; the manager should not make any judgement while getting the message and, if the case, he should ask for additional information; the manager should not make an answer before the message was completely sent; if the message lack coherence and wholeness, the manager should ask for additional explanations; the manager should finally make a sure and just answer.

If we take into account these rules, we can have a good communication, we can ensure thrust and esteem between the parties.

The technique of oral motivational feed-back

This technique is based on the prompt reaction of the manager in order to make some positive or negative remarks on the employee, but only in case he achieved a goal. The employee expects that after achieving different goals, the management should make some appreciations to see if he answered the manager’s expectancies.
There are two types of feedback in the relationship employee-manager: a positive and a negative one. As for the positive feedback, it is important that the assessment should be done individually and fit the employee’s expectancy. There are difficulties in the assessment, which should be managed. There are often fear of exaggeration, frequent prejudice that praising other people is self-de-valourising, and the fear that an employee never takes positive appreciation into serious.

Negative feedback creates lack of comfort at the employee level, which reacts to criticism and considers it a personal attack or accepts the defensive position without perceiving correctly the negative appreciation message.

We recommend that in order to overcome difficulties in the relationship employee – manager some principles such as: expressive, direct feedback; issues should be mentioned without any threats; no bothering mimicry should be used; negative effects of the phenomenon should be pointed out when approaching the employee action or non-action to eliminate further errors.

Robert Guest and Charles Walker are to be mentioned, with studies on the negative and positive effects when assessing employees’ activity.

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THE NEW TENDENCIES IN HUMAN RESOURCES OF MANAGEMENT

TENDINȚE NOI ÎN DOMENIUL MANAGEMENTULUI RESURSELOR UMANE

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The changes in Romanian economy lead to transformation of the human resources structure as physical labour is reduced in favour of intellectual work, and new jobs and professions occur. Important changes also occur in the field of managerial responsibilities, resulting in new managerial qualities, skills and attitude which presupposes the revaluation of managers’ training and instruction. The economic and technical progress, the rapid changes in the social environment of the enterprises, the increase in social responsibility and human resources mobility are several aspects pointing to the importance of human resources. In Human Resources of Management changes have occurred in short time: a higher quality of the managerial process, and a shift from quantity to quality. The future evolution of Human Resources of Management will include all the economic and social fields, allowing a better understanding of and approach to the aspects of the market and human demands. The changes in mentality and procedures relating to human resources are inevitable as the nature of enterprise ownership changes. Also, the integration of Romania in the European structures will allow the liberalisation of value circulation and employment opportunities.

Key words: human resources, quality of managerial process, strategic approach, labour market

INTRODUCTION

The time, the financial resources and human resources are the representing the three main elements on which are basing the efficiency and the competitiveness of an organization. The time resources and the financial one’s can be wasted without an efficient management an the technologies and management methods can be easily copied. Unlike these, the human

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resources are having a unique potential. Although the management ways of the human resources can be easily borrowed, new methods can always be found, methods that can stimulate the employees. People can change, adopt, learn and improve their skills so they are having a huge and unlimited potential from this point of view. That’s why the management of the human resources can offer to any organization one of the most important competitive advantage. The management of the human resources requests the assurance of all the positions from the structure of an organization with the people needed and this thing assume identification of the necessities, the recruitment and the selection, the hiring, the payment, the promotion of the staff (personal) and the improvement and perfectioning of the staff and the social activities, too.

1. The main new problems concerning the management of the human resources are referring to the following:
   - The mutations (changes) from the structure of human resources.
     Because of the development of the modern technology the human beings are participating less and less to the production process and the physical work is reducing in favor of the intellectual one. The results are the changes from the content of the qualification and the necessity of the technical knowledge is increasing in balance with the practical abilities.
   - The strategic approach
     The human resources are representing an important part of the resources used by organizations in order to prove their competitiveness and face their competitors. This thing involves experience, skills, knowledge, qualification and trust in its own employees. The appropriates repartition and integration of these resources can offer to the organization an important competitive advantage.
     The human resources are tied directly or indirectly to all the organizational processes and so they are important for the earning and sustaining of a competitive advantage.
   - The globalization
     The actual international economical conditions are having the following characteristics: dynamic, power and become a major force for all the areas of activity.
     - The maintainance of some politics inside the organization
       At the organizational level, the ethical principle can be the following:
- the use of some work practices in safe conditions for the employees (that will not put in danger their health;
- the right attitude in the recrutation process;
- the avoidance of the discrimination in the processes of selection, evaluation and promotion;
- the assurance of some equal politics for the works with the same value.

2. The tendencies in the human resources field.

Nowadays the management of the human resources is confronting with the biggest problems since the apparition of the concept, almost a century ago. This refreshment of the management of human resources happened because of some influences like changes in economy and legislation, global competition and the extension of organization’s perception as ways to accomplish the objectives of the society.

The most important influences that leaded to the transformation of the management of human resources from a specialization to a strategic function are: the human resources planning the improving of the employees skills, the payment of the employees, the respect for the legal reglementations; the relations with the unions; the use of some unique organizational politics; administrative services.

● The global competition

One long way tendence and with profound implications in management of human resources is global economy. From the human resources point of view the globalization is a huge challenge. The relations between employees and organization are changed and the last one is forced to reduce the activity because of the powerful competition.

● The slowing of the development’s rhytm

The general decrease of the development’s rhytm lead to the reduction of the opportunities number for many organization, tendence which is determined by the following changes:
- the substitution of the labour force with the technologic ways;
- the development of the automatization;
- the reduction of the intermediary managerial levels;
- the using of a more flexible labour force.

● The increase of the diversification degree of the labour force.

The large diversification of the labour force is determined by the next reasons:
the increasing number of women that joined the labour market;
- the increasing number of minority employees;
- the growing of the average age of the labour force.

3. Considerations regarding the influence of the external area on the management of human resources.

In the last two decades of the twentieth century, the whole population was affected by the numerous changes.

The decrease of the population’s number determined a reduction of the active population’s number one with the emphasized ageing of the population, the increasing number of working women and young people who are attending school. All these changes are influencing the management of human resources and are referring to:

- the reduction of the active population (starting with 1996 the number of young active population is reducing);
- the decrease of the active male population; this situation accures because of the reducing opportunities for the young generation or of the early retiring and the difficult reintegration on the labour market of the ageing people;
- the decreased number of young people;
- the ageing of the occupied active population;
- the diversification of the active population structure through the integration of the ethnic minorities and of the persons with handicap;
- the increase of the active population preparation; - the actual human resources are very well prepared and informed like never before. This represents an additional advantage for the organization performances. In this context, we can say that an efficient management of human resources has to turn to good account the qualities, the knowledge and the abilities of the the young people and to maintain the fidelity of the elder people.

- The duration of the working week and the occupied human resources – the changes from the labour market refer to the duration of the working day and the nature of the profression practiced by the human resources.

4. The economical perspectives of the European labour market.
In all the activities from the management of human resources’s field, the economical context in Europe influences directly the working conditions so the human resources.

- The European economical context – the speciality studies done by the Organization of Cooperation and Rural Development (O.C.D.E.) point out the fact that the evaluation of the labour productivity at the European level increased in 1997, after a decrease at the beginning of 1990. But this tendency didn’t maintain in the next years, fact that leads us to the conclusion that this increase manifests an European level.

- The evolution of the technology, especially the automatization and the extension of the new informational technologies;

- The economical areas that are quickly progressing and maximizing the use of the human resources are: artificial intelligence, biotechnology, genetics, the study of materials, electronics, the energetic exploitation. Obviosly the application of the new technologies determined a big increase of the labour productivity with direct favorable implications on the occupied human resources.

- The opening of the European market – once with the extension of the European Union and the increasing number of the cooperation agreement (European and international), the organizations are being confronted with a tougher and tougher competition that influences the local and national activity and in the same time reduces the possibilities on an European level. In consequence the majority of the organizations are looking for competent human resources not only on a local level and regional or national but especially on the European one.

We can say that, at the beginning of this century the role of the human resources is a secondary one, especially on the Little and Middle Size Enterprises. On the big enterprises level the human resources domain is limited at recrutation, selection, social negociation and payment and human resources are the center of the organizational strategies. Practically the development of the human resources area depends on the context in which is manifesting:

● Difficulties in human resources domain development.
In order to understand the weak development of this domain inside the Little and Middle Size Enterprises, we are reminding some of the most important problems like: the size of the enterprise, the institutional and juridical difficulties, externalization of the human resources.

- the size of the enterprise – the European economy holds an important number of little and middle size enterprises.

The investigations made, show that in these enterprises doesn’t exist a specialized human resources department and doesn’t elaborate a policy of management of human resources.

- difficulties and rigidities of the legislative part and the ones of the relations system with the union leave not much space for action and innovation in enterprises in order to create a human resources department.

- The externalization of the human resources – the choice made by the majority of the organizations to resort to the external human resources, reduces the importance of the management of human resources and the strategic interest of these. In fact, the success of applied strategies are basing on the efficient use of the human resources.

● An increase attention for the human resources (these being in fact the centre of attention of the organizational strategy). The contribution of the management of human resources in strategical changes inside the enterprises in Europe can be emphasized at two levels:

   - at the instrumental level, the management of the human resources is a way of changing things;
   - at the integrated level the management of the human resources is a part of the strategical change.

The integrated approach of the management of human resources generate a number of significant changes in their content like:

- enlarging of the human resources area of activity.

A good result of any strategy used in the human resources area is based on two competitive advantages: internal joining of the abilities with the external ones and the capacity to administratively efficiently the informal relations, to generate independent behavior and to develop the enterprising spirit of the human resources.

- the division of the labour market and the individualization of human resources in order to obtain good results of a capital importance in
which a big role are playing some qualifications and functions. So, the global approach of the European labour market has to be replaced by a divided and individualized approach.

The change of the recruitment and administration practice of employment and career of the human resources by creating an European labour market.

The decentralism of the human resources area – the decisions that are made about the human resources, are not made at a superior level anymore, the Department of Human Resources having more and more specific activities for the strategical management.

- The renew of the management human resources can be accomplished through some actions like:
  - the purchasing of some knowledge through the externalization of the activities, the coordination of the small enterprises and the development of contractual relations.
  - the transition from uniform management of human resources to a divided and individualized type of management.
  - a new administration of the abilities and employees with the purpose of transforming the enterprise.
  - the descentralism of the strategical decisions regarding the management of human resources.

CONCLUSIONS

The changes in mentality and procedures relating to human resources are inevitable as the nature of enterprise ownership changes. Also the integration of Romania in the European structures will allow the liberalization of value circulation and employment opportunities.
BIBLIOGRAPHY

This study has been developed at the level of representative company from EXTRA PAN Prahova, a commercial company belonging to the agro/food sector, that has on objective the bread production, bread and bakery products. The financial and economic indicators show that the situation of the company is depreciating in time. There are some ways to improve the activity of the company as follows: developing a marketing department, identifying the constant clients which respect the deadlines for the payment, allocating a considerable budget for the commercial activities and for the publicity, employing young staff; training the staff for applying for an upper level; introducing a motivating programme. Taking into consideration the profile of the company and the human resources efficiency indicators, reducing the number of the staff should be the main objective in order to increase the profitableness of the company.

Key words: management activity, agro-food company, economical financial indices, ways for improving

INTRODUCTION

Through the establishment and the operating statute, the objective of one company can include more types of activities to ensure the expected level of profitableness. It is very important in the evaluation process to know the level of profitableness of different categories of activities, both for selecting the
methods that will be applied as for a correct valuation of the possible methods, may to increase the profitableness.

The present study was created within a representative company from Prahova, belonging to the agro/food sector, called EXTRA PAN.

The profile of the company bread production, bakery production, bread commerce, bakery products and other products in the same field.

In the given context, the present study is aimed to identify opportunities to improve the management activity within this company in order to make it profitable, taking into consideration the aspect that the company is crossing a critical period due to an inadequate lead management.

MATERIAL AND METHOD

In order to make this study, some accounting data from the Accounting Department of the company for the period 2000-2004 were used.

The economic and financial indicators were calculated for the analysed period using the existing methodology for economic and financial analysis.

The decision factors can decide on the appropriate measures to improve the management activity and the profitableness of the company, taking into consideration the values of these indicators.

RESEARCH RESULTS

Table 1
The evolution of profit and turnover during 2000-2004

<table>
<thead>
<tr>
<th>Specification</th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
</tr>
</thead>
<tbody>
<tr>
<td>Turnover</td>
<td>1831530</td>
<td>5000000</td>
<td>14000000</td>
<td>13788502</td>
<td>16077344</td>
</tr>
<tr>
<td>Profit</td>
<td>104555</td>
<td>300000</td>
<td>900000</td>
<td>536304</td>
<td>212847</td>
</tr>
<tr>
<td>Percentage the turnover in the profit</td>
<td>5.5%</td>
<td>6%</td>
<td>6.4%</td>
<td>3.9%</td>
<td>1.32%</td>
</tr>
</tbody>
</table>
Analysing the data from the table, we notice a decreasing evolution of these indicators beginning with 2003, situation which needs radical measures to make the company more profitable.

**Table 2**

**The situation and dynamics of the income, expenses and profit in the 2000-2004 period**

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Year</th>
<th>2003</th>
<th>2004</th>
<th>2004/2003</th>
</tr>
</thead>
<tbody>
<tr>
<td>Turnover</td>
<td></td>
<td>13788502</td>
<td>16077344</td>
<td>116.59</td>
</tr>
<tr>
<td>Brought to day turnover</td>
<td></td>
<td>1516735</td>
<td>1125414</td>
<td>74.19</td>
</tr>
<tr>
<td>Other sources of income</td>
<td></td>
<td>10868</td>
<td>23795</td>
<td>218.94</td>
</tr>
<tr>
<td>Overall exploitation income</td>
<td></td>
<td>18358256</td>
<td>21654914</td>
<td>117.95</td>
</tr>
<tr>
<td>Overall exploitation expenses</td>
<td></td>
<td>17202488</td>
<td>21186598</td>
<td>123.16</td>
</tr>
<tr>
<td>Gross margin from exploitation</td>
<td></td>
<td>1155768</td>
<td>468316</td>
<td>40.51</td>
</tr>
<tr>
<td>Exploitation expenses -human resources</td>
<td></td>
<td>17202488</td>
<td>21186598</td>
<td>123.16</td>
</tr>
<tr>
<td>-others</td>
<td></td>
<td>3416367</td>
<td>3491381</td>
<td>102.19</td>
</tr>
<tr>
<td>Financial expenses</td>
<td></td>
<td>15095</td>
<td>11715</td>
<td>77.60</td>
</tr>
<tr>
<td>Exceptional expenses</td>
<td></td>
<td>34673</td>
<td>169252</td>
<td>488.13</td>
</tr>
<tr>
<td>Exploitation result</td>
<td></td>
<td>1155768</td>
<td>468316</td>
<td>40.51</td>
</tr>
<tr>
<td>Financial result</td>
<td></td>
<td>7705</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Exceptional result</td>
<td></td>
<td>-</td>
<td>27133</td>
<td>-</td>
</tr>
<tr>
<td>Overall income</td>
<td></td>
<td>18429858</td>
<td>21800300</td>
<td>118.28</td>
</tr>
<tr>
<td>Overall expenses</td>
<td></td>
<td>17461643</td>
<td>21443078</td>
<td>122.80</td>
</tr>
<tr>
<td>Profit before taxation</td>
<td></td>
<td>968215</td>
<td>357222</td>
<td>36.89</td>
</tr>
<tr>
<td>Profit tax</td>
<td></td>
<td>431911</td>
<td>144375</td>
<td>33.42</td>
</tr>
<tr>
<td>Net profit</td>
<td></td>
<td>536304</td>
<td>212847</td>
<td>39.68</td>
</tr>
<tr>
<td>Brought to day net profit</td>
<td></td>
<td>5899344</td>
<td>1489929</td>
<td>25.25</td>
</tr>
</tbody>
</table>
In conclusion, in the last years, S.C. EXTRA PAN made profit, but both the turnover and the profit obtained in 2004 are situated under the values from the preceding year.

Table 3
Financial profitableness rate in the period 2003-2004

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Year 2003</th>
<th>Year 2004</th>
</tr>
</thead>
<tbody>
<tr>
<td>Income</td>
<td>18429858</td>
<td>21800300</td>
</tr>
<tr>
<td>Total assets</td>
<td>5531121</td>
<td>5539302</td>
</tr>
<tr>
<td>Proper capital</td>
<td>3588119</td>
<td>3769002</td>
</tr>
<tr>
<td>Net profit</td>
<td>536304</td>
<td>212847</td>
</tr>
<tr>
<td>Financial rentability</td>
<td>14.94%</td>
<td>5.64%</td>
</tr>
<tr>
<td>Assets rotation speed</td>
<td>3.29%</td>
<td>3.93%</td>
</tr>
<tr>
<td>Financial lever</td>
<td>1.54</td>
<td>1.46</td>
</tr>
<tr>
<td>Net profitableness of income</td>
<td>0.029</td>
<td>0.009</td>
</tr>
</tbody>
</table>

A significant decrease with 9.3% of the financial profitableness rate was registered in comparison with the previous period.

Table 4
The structure of the main financing sources

<table>
<thead>
<tr>
<th>Indicators</th>
<th>2003 Thousand lei</th>
<th>%</th>
<th>2004 Thousand lei</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social capital</td>
<td>2094050</td>
<td>58.36</td>
<td>2099350</td>
<td>55.70</td>
</tr>
<tr>
<td>Proper funds</td>
<td>1235079</td>
<td>34.42</td>
<td>1398258</td>
<td>37.10</td>
</tr>
<tr>
<td>Provisions and other sources</td>
<td>259070</td>
<td>7.22</td>
<td>271394</td>
<td>7.2</td>
</tr>
<tr>
<td>Proper capital</td>
<td>3588199</td>
<td>100</td>
<td>3769002</td>
<td>100</td>
</tr>
<tr>
<td>Overall capital</td>
<td>3588199</td>
<td>100</td>
<td>3769002</td>
<td>100</td>
</tr>
</tbody>
</table>
Table 5

<table>
<thead>
<tr>
<th>Indicators</th>
<th>2003 Thousand lei</th>
<th>2004 Thousand lei</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Turnover</td>
<td>1378502</td>
<td>16077344</td>
<td>116.6</td>
</tr>
<tr>
<td>Debts</td>
<td>563101</td>
<td>377970</td>
<td>67.12</td>
</tr>
<tr>
<td>Obligations</td>
<td>2744704</td>
<td>2420882</td>
<td>88.20</td>
</tr>
<tr>
<td>Debts/obligation relation</td>
<td>0.20</td>
<td>0.15</td>
<td></td>
</tr>
</tbody>
</table>

In conclusion, in the analysed period, the debts and obligations decreased, while the turnover increased, which favourably influenced the flow of reserves. This influence is also showed in the debts /obligations relation.

Table 6

<table>
<thead>
<tr>
<th>Indicators</th>
<th>2003</th>
<th>2004</th>
</tr>
</thead>
<tbody>
<tr>
<td>General liquidity</td>
<td>0.56</td>
<td>0.63</td>
</tr>
<tr>
<td>Immediate liquidity</td>
<td>0.36</td>
<td>0.29</td>
</tr>
<tr>
<td>General solvency rate</td>
<td>2.84</td>
<td>3.12</td>
</tr>
</tbody>
</table>

The size and the evolution of the indicators show that, the company while regarding the solvency is in a better situation, the values of the liquidity indicators show an alarming situation.

Taking into consideration the values of the economic and financial indicators determined through the known methodology and information picked up on an interview leasiss at the level of the company a few recommendations can be made regarding the aspect of improving the activity of the company in order to increase its profitableness.

Recommendations for improvement

Among the proposals which could immediately be solved are:
- creating a new marketing department;
- finding new clients who will increase the production orders towards a maximum capacity;
- modernisation and development of the distribution and selling system;
- developing the base for materials, additional materials and auxiliary materials coming from importation
  - implementing new and efficient motivating methods
  - promotion on a competence leasis;
  - increasing the budget for advertising the products and for publicity;
  - developing new products, concentrating more on those considered to how market potential and on the value added products.
  - improving the machinery and equipment with high-tech equipments in order to face market conditions.

**Restructure of human resources**
- the structure mert take into aspects: know the awareness of the capabilities and the professional competence of the decisional and high educated staff;
  - improving the professional skills of the staff from bad managed areas of the activity: the selling department, the research and development department and the marketing department.
  - changing the technical and economical staff with new personell and monitoring very closely the increase of their competence through career programmes.

**The organizational restructure**
- Must aim at creating flexible forms of organization, oriented towards: Market
  - organizing selling activities on the requirements of the product distribution;
  - creating and training a marketing group for market research, selling promotion, identifying niche and market segments.
  - monitoring the selling in the company own shops and organizing advertising activities for new products as well as testing buyers preferences;
  - enlarging the range of sold products in the company's own shops and on the en-gross markets, concentrating on the food products which can be wropped using existing resources.
-subordinating the transport activity, the product distribution, of paralely with signing contracts or association actions with product transportes in order to cover high levels of demand.
- developing own shop network through renting or buying
- special programmes for traditional holidays

**Research and development**
- organizing activities with a main concern on:
- creating new products and technologies;
- implementing new technologies and using substituted and value added products;
- developing and modernizing the production capacity in order to create flexible capacities.

**Repair and maintenance**
- limiting the repair and maintenance activities through multi qualification and a level of payment depending on the production obtained;
- creating a new profile centre in this activity in order to receive repairment and spare parts, and the necessary difference to cover the expenses to be made by third services.

**CONCLUSIONS**

1. Employing new qualified staff in the company's departments represents a necessity within S.C. EXTRAPAN.
2. What is really in order to promote a modern management, is implementing new, efficient motivating methods
3. Modernizing and completing the management instrument, anew quality at the decision level needs a radical transformation and reconsideration of the range of the management methods is needed as well as real methods of utilization at the level of all organization phasing within the companies
4. Increasing the budget for the advertising the products and for publicity represents a solution for earning new clients and regain the market
5. Developing the base for raw materials, additional materials and auxiliary materials coming from importation is a very important issue in a strategic supplying with material resources
6. Improving the machinery and equipment base with high-tech equipments can be a condition in order to relaunch S.C. EXTRA PAN Prahova.

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CONSIDERATIONS REGARDING THE ANNUAL FINANCIAL STATEMENTS OF THE ROMANIAN ENTERPRISES

CONSIDERAŢII PRIVIND SITUAŢIILE FINANCIARE ANUALE ALE ÎNTRPRINDERILOR ROMÂNEŞTI

L. CERNUSCA*, T. DEKANY*

All companies are required to provide financial statements on a quarterly basis. These have to contain: the balance sheet, the profit and loss account, shareholders’ equity, cash flow statement, accounting policies and supplementary notes. Each of them is important for the information it provides both to the company itself and to the public and state. Accountancy attempts to create accurate financial reports that are useful to managers, regulators, and other stakeholders such as shareholders, creditors, or owners.

Key words: International Accounting Standards, Balance Sheet, Profit and Loss Account, legislation, European Directives.

GENERAL INFORMATION ON FINANCIAL STATEMENTS

Financial statements and records have been produced for as far back as there has been human writing. The people in the old Mesopotamian societies operated both insurance and credit corporations, and had the obvious need of record keeping.

Today most governments require publicly-traded companies to issue, and issue in a certain way, annual financial statements. Some governments, such as the Romanian government, require all companies to publish annual financial statements, although smaller companies only need publish them in abbreviated form.

Each statement presents financial data relating to a company's or a group's current financial health, business results for the previous period, and other indicators that are used by the company's stakeholders to assess the health of a company. Typically a company's stakeholders will include

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existing and prospective shareholders, employees and trades unions, the taxation authorities, banks, suppliers and customers.

The knowledge learned from business financial statements are not only important to the bank, financial institution, or other business you are submitting them too, but they also are very helpful in determining specific areas that the business owner can review to improve his or her own business.

Financial statements hold certain pieces of information that are essential to show how a business makes money. The income statement tells us how much product was sold; the balance sheet shows what resources were used to run the business; and the cash flow statement reveals the actual cash coming in and out of the business.

Financial statements can also be representations of business structures as recorded in a double-entry book-keeping system, and are used to support internal record-keeping and decision-making. While businesses are not obligated to use this format internally, most do keep its basic structure because it is well-understood by employees and well-supported by information systems. In this format, businesses view their financial condition in terms of assets, liabilities, and equity. Transactions consist of debits and credits.

Based on the objective of the financial statements which is to provide information on the enterprise’s performance and financial position, the companies that use OMF 94/2001 for bookkeeping, will have to write the following statements:

- balance sheet;
- profit and loss account (income statement);
- shareholders’ equity;
- cash flow statement;
- accounting policies and supplementary notes.

The companies that use OMF 306/2002 will have to write the following statements:

- balance sheet;
- profit and loss account (income statement);
- accounting policies;
- cash flow statement (mandatory).
Next we will be presenting three of the important financial statements: the Balance Sheet, the Profit and Loss Account and the Cash Flow Statement.

THE BALANCE SHEET

In the first part of the revolution in the Romanian accounting system, the legislators used a balance sheet based on the French model but in the second part of the revolution, they decided to harmonize the Romanian legislation with the International Accounting Standards and the European Directives and they used a model inspired by IAS 1, very close to the English Balance Sheet. The model was approved by OMF 94/2001 and is true to the European IVth Directive.

In formal bookkeeping and accounting, a balance sheet is a statement of the financial value (or "worth") of a business or other organisation (or person) at a particular date, usually at the end of its "fiscal year," as distinct from a profit and loss statement ("P&L," also known as an income statement), which records income and expenditures over some period. Therefore a balance sheet is often described as a "snapshot" of the company's financial condition at that time. Of all the financial statements, the balance sheet is the only statement which applies to a single point in time, instead of a period of time.

Companies that are units within a "group" of businesses must all use the same fiscal year, otherwise it would be possible to shift entries between units with different fiscal years, so the same resources would be counted more than once or not at all, making the annual report of the group's finances misleading. The Romanian fiscal year begins on the 1st of January and ends on the 31st of December, while in the United Kingdom, the government's financial year runs from April 1 to March 31, but the personal tax year runs from April 6 to April 5, as a vestige of the old New Year of March 25 (Lady Day) in the Julian Calendar.

The balance sheet has two parts: assets on the left-hand ("debit") side or at the top and liabilities on the right-hand ("credit") side or at the bottom. The assets of the company -- money ("in hand" or owed to it), investments (including securities and real estate), and other property -- are equal to the claims for payments of the persons or organisations owed -- the
creditors, lenders, and shareholders. This standard format for balance sheets is derived from the principle of double-entry bookkeeping.

According to the basic accounting equation:

\[
\text{assets} = \text{liabilities} + \text{shareholders’ equity}
\]

therefore:

\[
\text{assets} - \text{liabilities} = \text{shareholders’ equity}
\]

In business and accounting an asset is anything owned, whether in possession or by right to take possession, by a person or a group acting together, e.g. a company, the value of which can be expressed in monetary terms. Asset is listed on the balance sheet. It has a normal balance of debit.

In accounting, a financial liability is something that is owed to another party. This is typically contrasted with an asset which is something of value that you own. The basic accounting equation relates assets, liability, and capital (or equity) thus: liabilities + equity = assets where assets are what you own, liabilities are what you owe to others, and equity is what you have contributed to the venture.

Equity, which is the shareholders’ interest ("net worth"), may not reflect the company's true value, since assets are normally shown ("carried") on the balance sheet at what the company paid for them, without any adjustment for increases (write up) or decreases (write down) in their value since then.

THE PROFIT AND LOSS ACCOUNT (INCOME STATEMENT)

As in the case of the Balance Sheet, neither for the Profit and Loss Account, the Romanian legislators don’t impose a certain way of writing. The Profit and Loss Account as written in IAS 1, par. 75, must contain:

- income;
- expenditures;
- financing costs;
- income taxation;
- normal profit and loss;
- net profit or loss.

A profit and loss account is a financial statement that summarizes the financial transactions for a business over a period in time. In reference to
charitable organisations it is sometimes known as an Income and Expenditure account.

**Income**, generally defined, is the money that is received as a result of the normal business activities of an individual or a business. For example, most individuals' income is the money they receive from their regular paychecks.

In business and accounting, **income** (also known as **profit** or **earnings**) is, more specifically, the amount of money that a company earns after paying for all its costs. To calculate a company's income, it starts with its amount of revenue, deducts all costs, including such things as employees' salaries and depreciation, and the number that results is its income, which may be a negative number. At least part of this money is typically reinvested in the business, and some of the money might be used to pay the owners (the shareholders) a dividend.

**THE CASH FLOW STATEMENT**

A **cash flow statement** is a financial report that shows incoming and outgoing money during a particular period (often monthly or quarterly). It does not include non-cash items such as depreciation. This makes it useful for determining the short-term viability of a company, particularly its ability to pay bills.

People and groups interested in cash flow statements include:

- Accounting personnel, who need to know whether the organization will be able to cover payroll and other immediate expenses
- Potential lenders/creditors, who want a clear picture of a company's ability to repay
- Potential investors who need to judge whether the company is financially sound
- Potential employees or contractors who need to know whether the company will be able to afford compensation

Cash flow statements are particularly important for start-up companies with limited liquid assets. These companies are vulnerable to devastating cash shortages, even when Accounts Receivable balances point to long-term financial health.
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Without a specific standard, the enterprise’s management will use the professional reasoning for establishing an accounting policy that supply relevant and reliable information to the users of financial situation. The Romanian legislation helps the managers take that decision by harmonizing the accounting system with the European Directives and the International Accounting System. Using accounting policies can put an enterprise in the area of “fair accounting” or “bad accounting”. Adopting one of them can lead to obtaining certain objectives of the policies.

**Key words:** International Accounting Standards, treatment, professional reasoning, legislation, accounting policies.

Nowadays, the world’s accounting is in a process of harmonizing determined by the globalization of the financial markets, doubled by the globalization itself, in which the accounting information would have to become useful to many different users.

In the world, the last decades of the last century, were under the sign of development and expansion of the capital market.

If the world’s economy is under the changes made by the globalization of business, the international economical relationships, the development of the multinational firms and foreign capital investments, the accountancy couldn’t just ignore these movements, being in the full process of harmonizing.

The Romanian accountancy couldn’t ignore the changes in the world. Under Generally Accepted Accounting Practices, there are
opportunities for companies to have the flexibility to report financial transactions in a number of ways that are deemed to be fundamentally sound accounting procedures.

Before OMF 94/2001, the accounting policies were only an appendix to the Balance Sheet, called “Other information regarding accounting rules and methods and other data”, but these were either ignored or presented in summary.

Based on IAS 1 the accounting policies are actions taken by the enterprise oriented to adopting the principles and basics of conventions, rules and practices proper adopted by the enterprise when it writes and presents its financial statements. In another approach, the accounting policies are options determined by certain interests, using certain principles, rules and conventions regarding registration, recognitions and valuation of elements described by the accounting model, writing and presenting the financial statements, of modeling in a legal environment the presentation and information in the financial statements.

The legal harmonization of the Romanian accounting system, the writing of the accounting policies must be within the spirit, principles and demands of the European Directives and the International Accounting Standards in order to obtain:
- truthful and relevant accounting information:
- quality in the financial statements.

Trying to harmonize the Romanian accounting system with the International Accounting Standards won’t be easy. Some of the international accounting rules won’t be easily assimilated in practice. This is the case of IAS 2 and IAS 7. However there are standards that will be hard to assimilate in practice, such as IAS 12, IAS 36 and so on. There are also rules that won’t be used from the beginning. It must pas some time to prepare, this being the case of IAS 19, IAS 39 and IAS 26. Another problem will be that the state can’t accept to be the last user of the financial statements so using the standards “as they are” is not a good option.

Anyway, using the Standards in the Romanian accounting system is an exam that all the users have to pass.

Because implementing the Standards in the Romanian accounting system is a very delicate operation I’ll try to explain the things that have to be done in order to be able to overcome these difficulties.
The International Accounting Standards and OMF 94/2001 talk about professional reasoning which we have to use in order to analyze, clarify and understand an event or economical element. In this context of extending the professional reasoning, on the basis of the legislation harmonized with the European Directives and the International Accounting Standards, the activity of writing and using the accounting policies in every enterprise becomes a priority in order to obtain accurate accounting information and quality financial statements.

What would become of the professional reasoning and how far will it be used in Romania? For example, the professional reasoning is the one that gives the financial and accounting policies of the enterprise.

The accounting policies must indicate for each structure of the Balance Sheet and of the Profit and Loss Account, the treatment used by the enterprise to recognize and valuate with the motives according to the European Directives and the International Accounting Standards and with the professional reasoning for the cases when the specific treatment is adopted, other than those in the legislation.

In certain cases the International Accounting Standards allow two treatments for the same events. Based on the new Romanian laws, the same phenomena can be presented differently according to the treatment used. If the enterprise chooses a certain accounting treatment, the information will be different from the case when the allowed alternate treatment is used. Therefore, knowing the whole reality imposes to present the accounting policies used.

The legislation harmonized with the European IVth Directive and the International Accounting Standards is characterized by flexibility, the enterprise has the freedom to use a certain accounting treatment using the professional reasoning. As opposed to the legislation from the first period of the reform in the Romanian accountancy, the problem of having to use the same treatment by every enterprise isn’t there anymore.

The new legislation seldom presents explicit certain treatment using the International Accounting Standards.

One can just ask if using the alternate treatment could be possible in Romania.

a) The principle of the integrity of the opening Balance Sheet restricts the treatment stated by IAS 8. OMF 94/2001 stated that the
treatment from IAS 8 must be used but if the accountants use the
treatment, what’s the purpose of the principle?
b) OMF 94/2001 states that the allowed alternative treatment from IAS
21 that allows the introduction of the negative difference from
exchange in the assets can’t be used because the conditions stated by
IAS 11 are not met.

In practice, if we study the interpretation of the Standard, IAS 11
doesn’t nullify the possibility of using the allowed alternative treatment of
IAS 21 in certain very clear conditions, possibility that can’t be denied (IAS
11, par. 7).

It’s important that enterprises choose the accounting policies they’ll
apply all the time, as the new legislation seldom allows an enterprise to
change the policy. Thou the enterprise has the possibility to choose different
accounting policies, the financial statements will have to be comparable
with the previous ones.

When a certain accounting policy is adopted the impact it has on the
financial statements and performance of the enterprise has to be taken into
consideration. For example, choosing short periods of depreciation for the
assets will lead to high depreciation expanses which in turn influence the
profit of the enterprise.

Reporting to the International Accounting Standards and the
European Accounting Directives the domains considered for which the
presentation of the accounting policies would help the users to understand
the performance and the financial position refer to:
• Recognition and depreciation of the assets;
• Capitalization and the cost of debts;
• Building contracts;
• Leasing;
• Research and development cost;
• Taxes, including delayed taxation;
• Provisions;
• Exchange and differences from the exchange;
• Inflation;
• Government help.
Using accounting policies can put an enterprise in the area of “fair accounting” or “bad accounting”. Adopting one of them can lead to obtaining certain objectives of the policies:

- Minimizing the loss;
- Minimizing the profit;
- Minimizing or maximizing the net result.

In a strategy of optimizing the accounting policies must conciliate two opposite positions:

- Tendency to stay within the legislation;
- Tendency to avoid the legislation in order to accomplish the strategies.

The enterprises that use the new legislation would have to pay attention to the accounting information that is correct as to the requirements of the new legislation. Although the different methods allowed for reporting are within guidelines, they can produce significantly different outcomes for the bottom line.

A person who analyses the performance of an enterprise must understand that there are certain policies that can modify the result. The result can’t be seen as a simple subtraction of the inputs from the outputs. Two equally acceptable accounting methods create sizeable differences on a very small scale. Financial numbers can be manipulated within acceptable guidelines but there are companies that push the limit and often cross the line. Investor should be aware of the potential for numbers games and make every effort to compare one company to others within the same industry.

We think that the rules regarding the accounting policies of an enterprise, because of their importance, have to be drawn up by specialists, with the help of the accountants that can say if the policies are applied in the spirit, principles and demands of the European Directives and the International Accounting Standards regarding the financial situation.

The International Accounting Standards are based on the finality of the information giving little or no importance to the way the accounting articles are made and to the accounts used.

Will the Romanian accountancy get rid of the stiff accounts and give supremacy to the International Accounting Standards?
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The GIS development cycle is a set of eleven steps starting with the needs assessment and ending with on-going use and maintenance of the GIS system. These steps are presented here as a logical progression with each step being completed prior to the initiation of the next step. The GIS development cycle is based on the philosophy that one first decides what the GIS should do and then as a second activity decides on how the GIS will accomplish each task. Under this philosophy, the needs are described first, available resources are inventoried second, preliminary designs are created and tested as a third major set of activities, and lastly the GIS hardware and software are acquired and the database is built.

Key words: GIS, GIS tasks

Figure 1. GIS development cycle

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The figure above shows the GIS development cycle. As one can see the GIS adoption process is composed of strategy, implementation, and management frameworks. These three major areas of development are concurrent. The Organizational Strategic Planning Framework is the process by which the organization aligns all GIS development and adoption efforts with the requirements of the mission or organizational purpose. The Management Leadership and Guidance Framework is a changing joint organizational entity that provides checks and balances, and technical leadership during the GIS adoption process. The User and Process Centered Implementation Framework is the core of the technical GIS development and adoption process, built around user requirements and mission needs.

Prior to the development of any geospatial databases responsible organizational staff should attend introductory GIS seminars and workshops, GIS conferences, and meetings of specific GIS users' groups, to obtain a broad overview of what GIS is and how others are using these systems.

Figure 2. GIS adoption tasks

These "frameworks" are one way of dividing up the entire set of activities that must be accomplished to build a successful GIS. While there are other ways of expressing and organizing these activities, this particular
structure has been chosen because it emphasizes data development - data definition, data modeling, data documentation, data capture and storage, and data maintenance and archiving. The important point to be made here is not the order or structure of the tasks, but rather that, one way or another, all of these tasks must be completed to have a successful GIS.

No matter how simple or complex a given GIS environment is, all of the above tasks should be completed at an appropriate level of detail.

The GIS adoption tasks we emphasize here are highlighted with the gold-colored rectangle, in the master process diagram, above. These tasks and products are associated with GIS database development. A detailed view of these tasks can be seen in the figure above. We will focus on these tasks.

**Implementation Plan**

The Implementation Plan product describes the Organizational GIS scope and objectives, management framework, task descriptions, schedule, budget, and administration. The plan is often affected by modifications to the Strategic Plan due to reassessment of feasibility. The plan also establishes the Implementation Management Group which includes management, Installation GIS participants, as well as vendors and consultants. Relationships and responsibilities of all parties are well defined. The Implementation Plan also has been designed to incorporate the General Design characteristics of the GIS. The General Design provides a framework for all GIS hardware, software, network, and data considerations. This serves as an overarching "parental" database design that encompasses all "children" databases and applications that are based on individual business process requirements. These two information sets are extracted from a set of GIS application descriptions, a list of important data, and a description of management processes. Standard forms are used to document the results of user interviews. The information gained in the Needs Analysis activity goes directly into the General Design activity.

**Detailed Database Design and Implementation**

A comprehensive GIS data and process model should be developed for each participating organizational unit or department. The structure and contents of the database should be developed to support the needs of all intended users with a special focus on data maintenance. Other important
components of the database design and development include:

- How and where data will be physically located and maintained;
- The processes that will be used to maintain the data;
- Hardware performance requirements;
- Type and location of equipment to perform the required operations;
- Communications requirements (internal/external networks);
- Software specifications for storage and processing of data;
- The process user interface (How much can be performed by a typical user without the aid of a technician or vendor?);
- Documentation standards;
- What will be documented?
- By whom?
- In what format?
- Applicable data, procurement, procedural, and training standards;
- Training requirements;
- Special system environmental requirements;
- Data compilation and conversion requirements (if applicable);
- Technology selection and procurement;
- Technology installation and testing;
- Software and user interface customization (if applicable);
- Quality control/assurance procedures;
- Data loading and configuring;
- System on-site testing and acceptance;
- Analysis and modification of process models;
- Applications and management training as part of a general Organizational GIS Training Plan;
- Modification of the Implementation Plan (if applicable) (return loop on diagram).

The overall design of a GIS system is primarily an exercise in database design. It includes formal modeling (preparation of a data model) of the intended GIS database and the initial stages of the database planning activity.

**Database planning** is the single most important activity in GIS development. It begins with the identification of the needed data and goes on to cover several other activities collectively termed the data life cycle:
Identification of data in the needs assessment
Inclusion of the data in the data model
Creation of the metadata
Collection and entry of the data into the database
Data updating and maintenance
Archiving of data according to the appropriate data archival schedule

A complete data plan facilitates all phases of data collection, maintenance and archiving and as everything is considered in advance, data issues do not become major problems that must be addressed after the fact with considerable difficulty, aggravation, and unforeseen cost. The product of the Detailed Database Design activity is a data model that rigorously defines the GIS database and supports other detailed database planning activities.

A survey of available data can commence once needed data have been identified. This task will inventory and document mapped, tabular and digital data within the organization as well as data available from other sources, such as federal, state, or other local governments and private sector organizations. The entries in this inventory may include other GIS systems within the local area from which some of the needed data may be obtained. If there exists an organized data sharing cooperative or other mechanism for government data sharing, it should be investigated at this time. There also exists the possibility that one or more of the commercial GIS database developers may be able to supply some of the needed data and should therefore be investigated. The documentation should include an evaluation of each potential data source for use in the GIS. This same information will form part of the metadata for the resulting GIS database.

Technology Evaluation and Selection

Nearly all organizational GIS programs will rely on commercially available GIS software. As a result, a survey of available GIS systems should be conducted. During this activity, the GIS functionality of each commercial GIS system can be documented for later evaluation. GIS software is often only part of the total solution required to implement a database and application interface development. If attribute information is a key component of the GIS then relational database management software is required. If imagery is part of an information solution then image viewing,
manipulation, and processing software may be required. All applicable software products for data capture, conversion, manipulation, output, visualization, and storage should be investigated to support system requirements.

Detailed Database Design and Implementation includes the following activities:
- Developing a logical or physical database design based on the data model prepared earlier
- Evaluating the potential data sources
- Estimating the quantities of geographic data
- Estimating the cost of building the GIS database and preparing the data conversion plan

Concurrent with the detailed planning for the database, pilot studies and/or benchmark testing that are desired can be executed. Information gained from these studies and tests will be needed to estimate the size of the equipment (disk space, main memory etc.) and to determine how much application development will be necessary. Subsequently, plans for staffing, staff training, equipment acquisition and installation, and user training must be completed. After the preparation of all these plans, the entire cost of the GIS will be known and the final feasibility assessment can be made.

**Data Conversion and Data Loading**

Database construction is the process of building the digital database from source data - maps, images, drawings, tabular files, paper records, etc. This process would have been planned during the previous activity and the main emphasis here is management of the activity and quality assurance/quality control of the converted data. The conversion process is often "contracted-out" and involves large quantities of source maps and documents. Close and effective management is the critical factor in successful data conversion.

**GIS System Integration**

Unlike many other computer applications, a GIS is not a "plug and play" type system. The several components of a GIS must be acquired according to well-documented specifications. The database must be created in a careful and organized manner. Once all the individual components have
been acquired, they must be integrated and tested. Users must be introduced to the system, trained as necessary, and provided with adequate assistance to begin use of the GIS. Parts of the GIS which may appear to work fine individually may not work properly when put together. The GIS system staff must resolve all the problems before users can access the GIS.

**GIS Application Development**

"Application" is a general term covering all the tools that compose a GIS. First, there are "database applications" that have all the functions needed to create, edit, build, and maintain the database, and are usually carried out by GIS systems staff. Some users may have responsibility for updating selected parts of the GIS database, however the entire database should be under the control of a "database administrator." Other applications are termed "user applications." Contemporary GISs provide many simple applications as part of the initial software package (e.g., map display, query, etc.). More complex applications, or ones unique to a particular user, must be developed using a macro-programming language. Most GISs have a macro-programming language for this purpose (e.g., Arc Macro Language (AML) in ARC/INFO™ and Avenue in ArcView™). The applications needing development by the GIS systems staff should have been described during the Needs Assessment on the GIS Application forms.

**GIS Software and Systems Training**

A Training Plan should be developed that provides a formalized, long term strategy that outlines who should be trained, the subjects and topics covered, sources of education and training, forums, when training is appropriate in the implementation process, and training intervals and length. The Training Plan will likely change based on new application instruction requirements identified during the Detailed Design and Implementation phase.

**GIS System Use and Maintenance**

After having described the rather large task of creating a GIS, we can now say that the use and maintenance of the GIS and its database will likely require as much attention as was needed to initially build it. Most GIS databases are very dynamic, changing almost daily, and users will immediately think of additional applications that they would like to have
developed. Formal procedures for all the maintenance and updating activities need to be created and followed by the GIS system staff and by all users to ensure continued successful operation of the GIS.

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Romania has known several decades of relatively isolated development under the rule of Ceausescu. Transition proved to be a difficult task, more than for most other CEE 10 countries, and Romania was plunged into a deep transitional recession. Romania is, with Bulgaria, the poorest CEE 10 country (EU membership is foreseen in 2007) and Information Society development has not been seen, until recently, as a priority task.

**Key words:** eEurope+, IT Romania

**IT infrastructure**

Full liberalisation of the telecommunications market took place in 2003. The Greek operator OTE took a majority stake in Romtelecom and raised its ownership from 35% to 54% (2002).

According to the eEurope+ survey the fixed line penetration rate is 19.6 for 100 inhabitants (June 2003), exactly the same as the IBM survey gave for December 2002. Apparently, there has not been any progress. However, according to the National Regulatory Authority, the fixed line network is still expanding.

Thirty nine percent of urban households (settlements between 2,000 and 100,000 inhabitants) have a fixed telephone line and 29% in rural households (settlements with less than 2,000 inhabitants). While 17% of rural households has access to cable TV, it is 78.5% for urban households (2003, NRA). Although, in 2003, there were 6.2 million mobile lines in Romania, 3.8 million cable TV subscriptions and 4.3 million fixed lines, only 53% of the Romanian population had a fixed telephone line (eEurope+, December 2003). The quality of service of fixed lines is low. This raises the question of using the cable TV network for Internet service provision.

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Broadband Internet provision through the cable TV network is already possible and increasingly popular. In December 2003, 7.4% of households with Internet access at home accessed it using a cable modem.

The cable TV network (five major players with 80% of the market-2003) was preparing for liberalisation in 2003 and preparing the network for fixed telephony (costs approximately US$ 200 a line). UPC experimented with the provision of Internet over cable. It is estimated that 0.7-1 billion US dollars is needed for turning the cable networks into modern, two-way, star-shaped ones. Only strategic investors can afford this (Oaca, 2003).

Investments in the telecom infrastructure are still very low (among the lowest in the CEE 10). Big investments are not foreseen and not deemed necessary because it is believed that with new technologies, especially wireless solutions, cost saving improvements in the telecommunications networks might be possible. Universal service is not seen as a priority. From a commercial point of view, expansion of the fixed line network is not seen as lucrative. Fourteen percent of households with Internet at home accessed it using a mobile telephone (eEurope+, December 2003). There are four mobile operators. The mobile penetration rate was 28.5% in February 2004 (eEurope+; 31.7% in October 2003) while it was 24% in December 2002. IBM gives a mobile penetration rate of 26% in June 2003. Two operators offer GPRS services that cover about 95% of the population. In addition, there is a G3 mobile network covering the whole country. The fixed incumbent’s tariffs have not been rebalanced yet.

Romtelecom is obliged to provide cost oriented interconnection charges. These charges for termination in the fixed network are higher but comparable to the EU average (mid 2002). Fixed to mobile charges are the lowest in the CEE 10 and about half of the EU 15 average charge.

**Computer usage**

The number of households with a computer has increased dramatically. While according to the NRA and ITU 6% of households had a computer in 2002, it was 21.2% in December 2003 (eEurope+). However, 65% of the computers are not connected to the Internet (December 2003, eEurope+)

**Internet usage**

With respect to Internet usage there has been a big step forward
However, Internet usage stagnated during the year 2003. The expansion of public Internet access points may have contributed to the expansion since 2001 (from 0.050 per 1,000 inhabitants in 2001 to 0.231 per 1,000 in June 2003; the biggest increase in CEE 10 in terms of percentages).

Of all Internet users, 34% accessed the Internet from home (CEE 10 average 50%), 33% from work (CEE 10 average 43.5%), 41% from an Internet café (CEE 10 average 19%) and 16% from neighbours, friends or relatives houses (CEE 10 average 17%) (eEurope+, December 2003).

Another remarkable outcome of the eEurope+ survey is that 23% of Romanian regular Internet users made phone calls through the web (December 2003). Above all, lower income groups in Romania use the postal office, place of work and Internet café to access the Internet. In Romania, there is no clear pattern as to the frequency of Internet usage and household income categories. Above all employees and students are using the Internet. They represent 44% of all respondents but 68% of those who used the Internet did so in the last three months (June 2003, eEurope+). Many in the age category 16-20 years old use the Internet.

Figure 1. Internet usage in Central and Eastern Europe, 2001-2003

**e-education**

Very few are accessing the Internet in schools and universities. However, according to the Romanian ministry of education, 57% of schools
have Internet access (2003).

The Global IT report mentions the IT brain drain as one of the big problems in Information Society development.

Romania has only 9.6% of the population with tertiary education (2002) (European Innovation Scoreboard, 2003). Digital literacy is very low (SIBIS 2003A).

e-government
Only 12.4% of Romanian enterprises use the Internet for communication with public authorities, the second lowest percentage in the CEE 10 (CEE 10 average: 34.5%; eEurope+, December 2003).

e-health
Romania has the lowest percentage of GPs that have Internet access in their consulting rooms in the CEE 10. However, 43% of hospitals have Internet access and 33% of health clinics (2002, NRA and ITU)

Enterprises, IT usage, and e-commerce
The share of survey respondents (1,650) that purchased goods online decreased from 1.3% in June 2003 to 0.9% in December 2003 (eEurope+). The percentage of respondents that used Internet banking increased from 0.4% to 0.7% of the population. These are very low percentages in a CEE 10 perspective. 1.2% of males use Internet banking but only 0.2% of females (December 2003).

It appears that 25% of the Romanian workforce makes use of a computer (eEurope+, December 2003). According to the NRA (and ITU) 39% of employees use computers in their normal working routine (2002). But 58% of Romanian employees do not know how to use any programme (CEE 10 average: 41%) and 27% can use Internet (CEE 10 average: 37%) (eEurope+, June 2003). However, 36% of the workforce received basic IT training (eEurope+, household survey, December 2003).

The Romanian eEurope+ enterprise survey showed that 79% of enterprises use computers (June 2003). However, 58% of the enterprises with a computer are in wholesale and retail trade. Ninety percent of these enterprises with a computer have 1 to 5 computers and 49% of computers are connected to Internet. Twenty five percent of firms have Internet access. Forty one percent of enterprises with computers have 1-20% of their workforce using computers regularly (June 2003).
Sixteen percent of Romanian companies have their own web page (December 2003). Only 5% of companies use e-banking (December 2003).

CONCLUSIONS

Inhibitors
Telephone tariffs are not re-balanced yet. The level of both rentals and price of national calls is very low in comparison to other CEE 10 countries and to the EU 15 average as well. However, prices of international calls are among the highest in the CEE 10. Romtelecom claims that telephone tariffs have decreased by approximately 20% in real terms during 2000-03.

Internet costs are very low with an average of € 10 a month (the lowest in the CEE 10 according to IBM 2003 and eEurope+ 2003).

IS policy
Romania has a problem with implementing intellectual property rights regulations. There is a high piracy rate (70% in 2002; the highest in the CEE 10, see 2002 BSA piracy study results, International Planning and Research Corporation).

There is also a problem with under-utilization of human capital. Only one quarter of IT specialists are working in their field, half are working in another field while one quarter emigrated.

Strengths:
- ICT specialists;
- ICT use in enterprises;
- High cable TV penetration;
- Consolidation of telecommunications operator market;
- ICT usage in schools.

**Weaknesses:**
- Low per capita GDP
- Low fixed line penetration rate;
- Low share of population having tertiary education;
- Low PC and Internet penetration at schools;
- Deep rural-urban divide;
- Low level of Internet usage among youth.

![Regular Internet usage, according to settlement, Dec 2003](image)

**Opportunities:** multi channel access policy with help of new technologies EU integration.

**Threats:**
- Lack of ICT infrastructure in rural areas;
- Lack of IT specialists due to emigration;
- Implementation of intellectual property rights regulations.

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The material used within this study is the natural fruit extract (apples). It has been used the exploring method performing a periodical examination of the main parameters: organoleptic, acidity and dry substance. When these parameters are within the standard limits fields, the studied drink shall be homologated and produced on industrial level.

Key words: nutritive value, acidity, turbidity

1. INTRODUCTION

The transformation of fruits in juice appeared as a necessity of transforming the excess of consuming fruits that are still fresh. At the moment, the processing of the juice from fruits has an important place in the industry of fruits and vegetables processing, being not a secondary activity but an industry branch.

More than that on an international level the fruit juice industry is in a continuous development, having the highest rhythm of development from all the fruit processing industries.

The explanation of this explosive development is due mainly to the fact that during the last years the researches in the food hygiene field underlined the important role of the fruit juice in the rational nutrition.
Due to their content in sugar, vitamins, organic acids, lipids, protides, mineral substances, enzymes, flavored substances, and to the pleasant taste, and being easily assimilated by the human body, the juices represent an essential component of the modern man nutrition. More than that, due to their curative effects in a series of chronic and acute diseases, in the modern medicine we talk more often about the fruit juices diet. [1]

Most of the sugars contained by the fruit juices are under the form of fructose, being recommended for diabetics’ nutrition. Due to their high content of potassium salt they are recommended for cardiovascular diseases, treatment and preventions. Their low content of fats and high content of sugar and vitamins enable them to act as drugs in the liver and the gall bladder treatment.

Due to their specific anti-infectious and anti-microbe action the fruit juices are recommended against many diseases of the epidermis (acne, eczema, furunculosis, etc.)

The fruit juices are also recommended against different diseases of the digestive system (gastritis, ulcer, enterocolitis), on one side due to the relaxing and non-inflammatory action of the substances with pectin that form a gastric bandage and on the other side due to the alkalinity of the mineral substances that neutralize the hydrochloric acid from the stomach mucous.

Even though they are rich in organic acids, the fruit juices do not raise the acidity level; on the contrary they have a comforting effect. The explanation to this paradox is that in the metabolism processes the organic acids create cations and anions, the cations (basic elements) being more numerous than the anions (acid elements). [1]

Therefore the fruit juices are recommended for a large variety of diseases in which the body accumulates acids (acidosis), diabetes, sub nutrition, podaga, tissue aging, etc.

Juice diet fights against fatness due to its low content of calories in a large volume that reduces the feeling of hungry and due to the potassium salt that facilitates the elimination of water in excess from the tissues.

2. EXPERIMENTAL STUDIES

By lab measurements we have established the main parameters.
For the natural fruit juices we have analyzed the following characteristics:

- The dry substance determined by refractometry
- The acidity by titration with NaOH or potentiometers
- The turbidity determined by turbidimeter

The obtained results are registered in the table here below [4]:

<table>
<thead>
<tr>
<th>No.</th>
<th>Characteristics</th>
<th>Measuremnt Unity</th>
<th>Test Method</th>
<th>Determined Value</th>
<th>Value Established after Determination</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Organoleptic Exam</td>
<td></td>
<td>STAS 2567/87</td>
<td>Clear liquid without any sediment</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Aspect</td>
<td></td>
<td></td>
<td>Yellow, light – brown</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Color</td>
<td></td>
<td></td>
<td>Nice, sour - sweet, characteristic for the product</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Taste, smell</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Acidity</td>
<td>g/l malic acid</td>
<td>STAS 2567/87</td>
<td>3.67 3.80 4.30</td>
<td>minimum 3.5 maximum 4.5</td>
</tr>
<tr>
<td>4</td>
<td>Turbidity</td>
<td>N.T.U.</td>
<td></td>
<td>1.2 1.5 1.8</td>
<td>Minimum 0.5 Maximum 2.5</td>
</tr>
</tbody>
</table>

**Therapeutic effects of the apple juice:**
The apple juice is used as:
- sedative to the nervous system
- metabolism stimulant
- creates appetite
- fights the artery sclerosis

The apple juice is recommended for the persons that make intellectual efforts. A concentrated liter is being diluted in 6 liters of apple juice 11° Brix.
3. NUTRITIVE VALUE DETERMINATION. RESULTS AND DISCUSSIONS

The nutritive value can be determined considering the main components from the chemical composition of the apple concentrate.

The nutritive value is recommended as the quality factor of a food product.

For a long time there was a confusion between the nutritive value and the energetic value, which is easy to calculate but this simplification generates a serious error especially in the modern life environment when the body needs a minimum of energy but a great share of proper nutritive substances with biocatalyst functions.

It is necessary to mention that the nutritive value of a food product is given by its composition of nutritive substances (protides, sugars, glucides, vitamins, mineral salts), by the relation between the components, by their quality, by the degree of digestive utilization and by the way the product satisfies the body’s necessities. [3]

It is difficult to estimate to what extent a food corresponds to the body necessities considering that in the chemical composition we can find 20 components of glucides, approximate 20 mineral substances, vitamins, organic acids, etc. Thus it is practically impossible to establish a global index of the nutritive value of a product.

After studying the specialized literature we have used the nutritive value index established by Strmiska F. that takes into consideration the essential components of the food product for the well functioning of the body. [4] The index is calculated using the following formula:

$$VN_{8} = \frac{1}{8} \left( \frac{Pr \cdot k_{Pr}}{d_{Pr}} + \frac{Z \cdot k_{Z}}{d_{Z}} + \frac{SM \cdot k_{SM}}{d_{SM}} + \frac{K \cdot k_{K}}{d_{K}} + \ldots + \frac{Ca \cdot k_{Ca}}{d_{Ca}} + \frac{Mg \cdot k_{Mg}}{d_{Mg}} + \frac{P \cdot k_{P}}{d_{P}} + \frac{Vit \cdot C \cdot k_{VitC}}{d_{VitC}} \right) \cdot 100$$

which:

- Pr = proteins content, g / 100g
- Z = sugars content, g / 100g
- SM = mineral salts content, g / 100g
- K = potassium content, mg / 100g
- P = phosphor content, mg / 100g
- Ca = calcium content, mg / 100g
- Mg = magnesium content, mg / 100g
Vit C = vitamin C content, mg / 100 g
k = digestive utilization coefficients of the components (table)
b = biologic value coefficient of the proteins (table)
d = daily necessary for each component

The daily necessary (d) of the eight components has been considered the following:

- PROTIDES…………………………95 g
- GLUCIDES………………………..435 g
- Ca…………………………………..1,3 g
- P……………………………………...1 g
- Mg……………………………………1 g
- K……………………………………1,5 g
- Vitamin C………………………….35 mg
- Mineral substances………………….10 g

For simplification, we have calculated the value K .b. 100/d which was notated with F, [2] the formula of VN8 being the following:

\[ VN_8 = \frac{1}{8} \cdot (Pr \cdot F_{Pr} + Z \cdot F_Z + SM \cdot F_{SM} + K \cdot F_K + ... + Ca \cdot F_{Ca} + Mg \cdot F_{Mg} + P \cdot F_P + VitC \cdot F_{VitC}) \]

The utilization coefficients for the apple nutritive substances are:

- \( k_{Pr} \)………………0,80
- \( k_Z \)………………0,44
- \( k_{SM} \)……………..0,70
- \( k_{Ca} \)……………0,70
- \( k_P \)………………0,60
- \( k_{Mg} \)……………..0,50
- \( k_{K} \)………………0,80
- \( k_{C} \)………………0,80

The biologic value coefficient (b) of the fruit proteins is 0,60.
The F coefficient values for the nutritive substances from the main food products group are:

- \( F_{Pr} \)………………0,69
- \( F_Z \)………………0,10
- \( F_{SM} \)………………54,00
- \( F_{Ca} \)………………54,00
The main components of the fruit with seeds (apples):

- Protides: 0.3 g /100g
- Sugars: 16.0 g / 100g
- Mineral substances: 0.3 g /100g
- K: 144 g / 100mg
- Ca: 7 g / 100mg
- Mg: 6 g / 100mg
- P: 12 g / 100 mg
- Vitamin C: 10 g / 100 mg

So the results for the nutritive value are the following: VN₈ = 8.73 g to 100 g of apples.

CONCLUSIONS

1. The nutritive value index VN₈ is an objective criterion for estimating a product from the point of view of the utilization value, nutritive and representative value to a quality index that is important in estimating the food products.

2. After studying the specialized literature we have used the nutritive value index established by STRMISKA, F., that takes into consideration the essential components of the food product for the well functioning of the body.

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AGRICULTURE AND THE MANAGEMENT OF HUMAN-ENVIRONMENT RELATIONS

AGRICULTURA ȘI MANAGEMENTUL RELAȚIILOR UMANE CU MEDIUL

DANIELA HARANGUS*

The challenges that are facing mankind in the threshold of the third millennium, force upon us the necessity of designing a new ethics for the management of human-environment relations. A solution for respecting the new ethical principles may be given by the ecological agriculture, which ensures a better environment protection in comparison to the other production systems. In the management of human-environment relations a new concept, ecodevelopment, which supposes a new development strategy for economics and finance with the purpose of improving the quality of life and protecting nature was realized.

Key words: ecological agriculture, management of human-environment relations, ecodevelopment.

Agriculture, a new vital area of economy, continued to remain the most controversial subject of debate in the realizing of the regional and national economic policies, in the context of global economics.

The European Union issued and realized the Community Agriculture Policy (CAP) to the purpose of sustaining and protecting European agriculture. On this occasion issues related to the agriculture progress, the proportion of active population involved in this important economic sector, the increase of income for rural population, the protective measures implemented in agriculture product world trade, solving the food issue, diminishing the work force exodus toward cities, the halting of environment deterioration and the creation of a new ecological agriculture were approached.

The close relation between agriculture and environment is reflected even more nowadays, at the threshold of the third millennium, a millennium that brought more liberty and more options for mankind, but also the danger that human activity would deteriorate the environment and the whole planet.

Lester Brown, the coordinator of the papers called “The State of the World”, edited yearly by The World Watch Institute, underlines the two

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main defiances with which the human civilization is confronted at the beginning of the new millennium:
1. the conflict between the development of civilization and the natural support, the tendency to exhaust reserves respectively, while the economy demands them more and more, and the environment factors are deteriorating. In this situation the harmony between the development of civilization and the stage of resources and environment quality is necessary;
2. the great social unbalances, the aggravation of discrepancies between the rich and the poor.

Beginning with the great challenges that face the humankind nowadays, in the threshold of the third millennium, the necessity of forming a new ethics for the management of human-environment relations, the relations of humans with the nature, determined by three basic principles, are imposed:

- the complexity of nature as a system forces us that in unforeseen situations to act, as much as possible, in the sense of minimal perturbation;
- in nature “business”, nature which does not offer anything in large quantities without sacrificing something in exchange, we must recognize the price that must be paid before deciding whether it is worth or not;
- nature does not allow the re-establishing of complex systems to a previous state, a fact that makes it necessary for human actions to minimally disturb it.

If we take into consideration the complex relation between agriculture and the environment, we think that for the solving of this difficult problem with the respecting of ethical principles presented above, the only solution may be given by ecological agriculture. Agriculture practices promoted within ecological agriculture are those that allow the sustainment and protection of a healthy planet.

Ecological agriculture is a system of agriculture production that has as main purpose the manufacturing of “maximum quality” food, without using chemical products, either in the process of obtaining raw materials or in the further transformation of them, in the same time trying to preserve and improve soil fertility. Ecological agriculture ensures a better environment protection, in comparison with other production systems.

Re-thinking and re-sizing the relation between agriculture and environment knew an important leap by the step taken through the passing from conventional, intensive agriculture to the ecological agriculture. The small step taken by man from intensive agriculture to ecological agriculture will mean a giant leap for humankind in the saving and preserving of the environment. In the specialty literature an intensive preoccupation for the defining of the relation between agriculture and environment, between the
environment protection and the ecological agriculture, the defining of a healthy agriculture as balance for itself, but also for waters, land, and air is to be noticed. An ecological agriculture represents in the same time a guarantee of economical stability and durability.

The increase of the planet population to 6.1 billion inhabitants determines a great pressure on agriculture and an increased demand for agriculture terrain. Exaggerated agriculture exploits and the salinity of soil due to badly managed irrigation lead to soil erosion and deterioration of the ecological system. All these finally lead to irreversible degradation of the environment, with unwanted effects on the quality of human life.

Having in view the complexity of this problem, the European Union is concerned with the ecological dimensions of agriculture, with the ecological quality of agriculture-produced food and environment protection in all areas. Romania also applies the regulations of the European Union that are imposed to the member states, elaborating a new environment protection strategy. In fact, the main objective for the management of human-environment relations is the respecting of the main principles that form the foundation of the “Environment Protection Strategy” respectively:

- the conservation and improvement of human health;
- durable development;
- avoiding pollution by enforcing prevention measures;
- respect for the principle “polluter pays”;
- stimulating the activity of environment reconstruction;
- conservation of bio-diversity;
- conservation of the cultural and historical values.

These principles are found in Romanian legislation as well.

Bad management of human-environment relations have as effect aggressive human pressure on the natural Earth systems leading to:

- deterioration of environment quality;
- climatic changes;
- step-by-step degradation of the protective ozone layer;
- disappearance of forests or the distraction of forest area;
- disappearance of some species of flora and fauna;
- irrational exploitation of natural resources, a fact that will lead to the increase of consumption, which is estimated to surpass by 180-220% the biological potential of the planet by the end of 2050;
- the degradation of drinking water resources from the planet;
- the start of natural disasters.

This is too high a price for the Earth to pay for mankind. Analyses made by international bodies lead to a worrying conclusion, that the Earth is more in danger nowadays than it has ever been.
Therefore, at the Summit of Durable Development in Johannesburg, also known as the Earth Summit in South Africa in 2002, the conclusion of scientists was extremely clear, saying that if the present model of production and consumption does not change, than the Earth will perish.

The solution found was that of a new concept- ecodevelopment, which supposes a new social and economical development strategy having as purpose the enhancement of life quality and the protection of nature. This new concept, ecodevelopment, would like to prevent the deterioration of the environment. But in the specialty literature the idea that at the base of any environment protection strategy must stay the concept of durable development which to correspond to present requirements without compromising the future, is clearly stated. The new concept, ecodevelopment, imposes more exigency in the management of human-environment relations, casting it into the limit of strict requirements of ecological development. This new strategy of social and economical development issued at the Earth Summit in 2002 also follows the complex interaction of four systems: economic, human, environmental and technological within ecological limits. So if we take into consideration the fact that the expanding of global economy is based on non-renewable resources with a strong impact on the environment, surpassing the capacity of different ecosystems, then the fact that this new concept of ecodevelopment wants to be a saving solution for mankind is evident.

The complexity of the relation between agriculture and the management of human-environment relations may be approached also from the point of view of solving a planetary issue, respectively food security for humankind. In our opinion, agriculture is the only one that can ensure food security, solve hunger at planetary level. But it is very important what kind of agriculture is practiced and to what extent ethical principles underlying the management of human-environment relations are respected. Mankind needs equally not only food security but also a quality environment in which to be able to live.

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LIMITATION OF RISKS IN AGRICULTURE CREDITING

LIMITAREA RISCURILOR ÎN CREDITAREA AGRICULTURII

DANIELA HARANGUS*, RODICA BLIDISEL*

To limit risks in agriculture crediting banks introduced a series of criteria and restrictions in awarding credits, in all stages of the crediting process. They also established some general measures valid for limiting the crediting risk and special measures for bank prudence. An important part play the insurance guarantees of risk taking from agriculture by insurance companies, required by banks at awarding credits and the system of agriculture insurance.

Key words: risk limitation, agriculture crediting, measures for bank prudence

The difficulties of Romanian transition, both for Romanian agriculture and for the banking system led to serious reduction of credits destined for agriculture. More than that, agriculture is the sector with the highest risk within the sectors of national economy, a fact that explains also the reserve and reticence of commercial banks in awarding credits for agriculture exploits. Crediting is the highest risk activity within banking activities. The risk is permanent, in any business, and more so in agriculture exploits, depending on the conditions created.

Crediting risk supposes the risk taken by the bank, both of non-reimbursing risk and credited business risk, and that of the client bankruptcy. Taking into consideration the grave consequences of the unlimited and unmonitored crediting risk, banks are concerned with finding valid solutions and establishing adequate measures for the diminishing of the crediting risk. The criteria introduced by banks themselves (general and special criteria) and the crediting restrictions imposed by them are in fact measures for diminishing the crediting risk.

These measures are found in the specific crediting norms for every bank and may be identified for each of the five stages of the crediting process (requirement, analysis, approval and reimbursing).

For the limitation of crediting risk banks established a series of valid general measures which refer to:

- not giving credits for activities forbidden by law;

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the obligation of credit petitioners- companies- to be legally constituted, and required credits to be destined for realizing activities and actions bound to their activity area;

- persons who sign the requests and credit contracts to have the legal capacity of assuming obligations in their own name or in the name of the represented company;

- the petitioner to make the proof of the reimbursing capacity for the received credits and the interests incurred;

- to present guarantees for the required credits;

- the company to have an organized and legally conducted accountancy system, and the previous relations with the bank to have respected all the engagements assumed;

- the petitioner has to prove the existence of funds for the objective that is credited by the bank in the proportions that have been required;

- the clients which ask for credits have the obligation of presenting to the bank all documents and information required by it.

Commercial banks do not award credits to petitioners which have intentionally issued documents without cover and have given the bank unreal or incorrect information in order to obtain bank credits. For the limitation of the crediting risk banks do not give credits to petitioners which have debts from former credits or interests that have not been paid in the specified term, and in the case in which from the realized analysis results that in the following period they have no possibilities for acquitting them.

If a company has vocation and obtains a bank credit, the bank permanently follows the evolution of economical and financial indices of the company, the respecting of the approved credit and the way of depositing, maintaining and ensuring goods that have been brought as credit guarantee.

The measures presented above are destined to limit or diminish the crediting risk for banks. Another measure destined to divide risk between bank and client is the requirement of the bank that the client participate with a part of its capital ( own funds) to the business that is to be credited.

In this uncertain transition period, for the limitation of crediting risk in agriculture, banks have established a series of prudence measures that are bank specific, which are added to the general valid measures described above.

These specific prudence measures for the limitation of crediting risk in agriculture refer mainly to the necessity of agriculture exploits that ask for credit to have a certain size of agriculture areas or a number of animals from which exploitation to ensure:

- productive consumption for the exploit;
direct consumption for the farmer’s family (depending on the number of members);
- the valuing of a certain necessary quantity of products so as to obtain revenue necessary for family needs, tax payment, credit reimbursing and payment of incurred interests;
- the actual income in the preceding year to surpass the volume of credits required including incurred interests;
- the offered products and services to be competitive and the prices to be within the market limit;
- for physical persons that ask for credits, the installments to reimburse and the incurred interests not to exceed a half of the actual permanently obtained income.

In specialty literature the measures for prevention and limitation of banking risk and implicitly of the crediting risk are divided into three categories respectively - prevention measures, operative measures and curative measures.

Preventive measures are those by which the crediting risk may be surpassed by constituting guarantees (in proportion of 150-200% of the credit value) in the bank profit, and also in the capacity of the potential credit to generate income. In the category of prevention measures are included verifications regarding: the reasons for the loan request and its destination, the petitioner’s origins and legal arrangements and its relation to employees and business partners. The bank also checks the general economic situation in the sector in which the potential debtor is acting, the financial and economical situation and the perspectives of its administration, and also the rapport between the own patrimony and that loaned to the credit petitioner. Within prevention measures are also monitored the criteria adopted by the client for profit distribution, its contracts, the real constituted guarantees and the situation of its patrimony.

Operative measures for the limitation of banking risk refer mainly to the bank advantageous credit contract. Other operative measures refer to: the verification of respecting credit destination according to the provisions of the credit contract, the checking up of the regularity of payments from the client account, the way the client acquires its contractual obligations. The bank verifies periodically the accounting documents of the company, analyses its position on the market and makes the scripting and factual verification for the given credit guarantees (by unannounced controls at the client’s headquarters).

Curative measures for the limitation of crediting risk apply in the situation in which the bank states the breaking of contractual obligations by the borrower. From the category of curative measures are:
the interruption of credit contract;
- the execution of real guarantees, by auction and cashing in the credit value, after the beginning of legal procedures for forced execution;
- avoiding risks by the constituency of specific risk provisions by the bank and the reserve fund.

Prevention measures for risk crediting presented above are taken by the bank to the purpose of correct administration of the credit portfolio and profit obtaining. We think that both the measures for limitation of crediting risk that were presented above and divided depending on the criteria and crediting restrictions imposed by the banks in all stages of the crediting process, and those presented in the specialty literature are not limiting, having the possibility of enhancing them depending on the skill, prudence and intuition on the part of the banker which gives credits.

For the limitation of risk in agriculture crediting, beside the specific banking measures presented above we think a solution for agriculture exploits that require credits would be agribusiness, which integrates all activities from the “farmer’s gates” to the “consumer’s table”, production, manufacturing, logistics, distribution, marketing and incurred services respectively, therefore limiting the business risk in this sector. Being a closed circuit between the farmer and the consumer, in which no other outside elements intervene, elements that may carry risks, agribusiness reduces or limits the business risk and implicitly the risk of crediting the business.

For the limitation of risks in crediting agriculture an essential part have the guarantees required by the banks in awarding credits, and also the agriculture insurance system, a system that supposes the taking of risk from agriculture by insurance companies. Commercial banks impose to the beneficiaries credits which would require insurance with an insurance company for all goods brought as guarantee, including those bought or obtained as a result of the credit.

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The cumulative impact on the environment could be appreciated by the material and non-material goods consume. The ecological footprint express the linkage between population number, material and non-material goods consume efficient allocation for each product of available technology and environmental factors. Now days, at global level, it is registered an ecological deficit by 0,38 ha / person, that indicating a long time available resource diminishing.

**Key words:** sustainable development, ecological footprint

A traditional perspective for development had optimum results regarding economical activities extension and it is still in the top of the top of political concerning in the most of the countries. Long term objectives in local and national economies are integration in global economy, without restriction of commerce and stock circulation.

All of them would determine an increase of industrial production and a probably increase of local resource consume. The week points of traditional development are more and more evident.

Most of 30% of world population is suffering of malnutrition and almost 60% of them are living with 2 dollars per day. One percent of world population, the richest ones consumes as much as 44% of the world population, representing the poorest ones. In those conditions the poorest has the lowest capacity to protect themselves against global ecological effects. Hundreds of millions people are underfeed, even if there are enough resources on Earth. A long way development or a sustainable one is more

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and more difficult to achieve for the poorest ones. When families need to destroy the forest to get land for agriculture and to procure wood to prepare the food, in this case we cannot talk about a long way development. A long way development, a sustainable one is more and more difficult for the parents. Time when 20% of world population enjoy their welfare, another 20% are living in absolute lack of resources. (United Nations Organization UNDP, *Human Development Report*, Oxford University Press, 1992-1994)

This development model was criticized just for this social inequity, but today facing the critical ecological restrictions, using the resources and producing wastes till the actual level, consume the nature more than its capacity of renewable capacity.

In 1987 the Bruntlan report “Our common Future” make known the expression “sustainable development” being defined as “satisfying the present demands without compromising the future generations possibility to satisfy their demands”.

Today there are many definitions of sustainable development, but not a study of this concept is the most important issue of this paper work. So we will stop on Steve Goldfinger concept about sustainable development “the resources conversion in wastes it should be made slower then wastes to resources reconverting” (www.rprogress.org).

To create sustainability it is necessary to create a balance between two objectives that are in direct competition: satisfying a life improvement maintaining the ecosystem bio-productivity capacity -“carrying capacity” (Cobb, C.W. and Rixford, C.;”*Lessons from history of social indicators*, Redefining Progress, San Francisco, 1998).

Many aspects of life quality depend by consumers. The goods and services are sustaining us and make our life more comfortable and more enjoyable. All of those are demanding material inputs and natural deposits for wastes. The cumulative impact on environment for any type of activity could be estimated in concordance with consumes level. Where consume overcome to local and global bio-productivity, the situation could not be sustained. To evaluate the humane consume impact we have to take in consideration the consumers number and the resource involved in each activity.

In this way the ecologist Paul Ehrlich from Stanford University and John Holdren – expert in Physics from Berkley University proposed a model:
IPAT [Impact – Population – Affluence (consume level) – Technology], and after this a formula was made:

\[ \text{Impact} = \text{Population} \times \text{Affluence} \times \text{Technology} \]  

[1]

This shows an existent relationship between environment impact numbers of people, and consumes level (affluence) for each consumer and technological efficiency in each product allocation. This equation was explained in this way: “The impact of each human group on environment could be described as a product of three factors: First one is the number of individuals - population. Second one is a measure of average resource consume per person (which it is an affluence number). And the third one, the product of those two factors – population and consume per person is composed with an indicator of environment damages made by technologies which generated the consumed goods. The last indicator could be considered as an impact upon environment produced by the quantity of consumed goods. The latest one could be considered as an indicator for the impact on environment, generated by quality of consumed goods. (Ehrich and Holdren, 1971)

To reduce the human impact on the planet is necessary to actuate in the same time upon those three Ehrlich and Holdren variables, which was reformulated by Harrison, in this way:

\[ \text{Impact on environment} = \text{Population} \times \text{Consume per person} \times \text{Impact of each consume units upon environment} \]  

[2]

This equation made by Ehrich – Holdren – Harrison was ones applied by Wackernagel and Rees from British Columbia University – Vancouver, to calculate the ecological footprint, does mean the productive surface, by ecological point of view, utilized by each person for his own consume and to assimilate the produced wastes.

Mathis Wackernagel and William E.Reeses considered “ecological footprint is a calculation instrument which afford us to consider that the resource consume and wastes assimilation that is given by certain population level or some economies and to represent those information in productive land surfaces”. (Mathis Wackernagel and William E. Rees, *Ecological footprint*, Ambiante Publishing, Milano, 1996)
Ecological footprint is an indicator that reveals the relationship between population lifestyle and nature quantity that is necessary to sustain that lifestyle. It is a simple indicator and relevant that it is expressed through land surface (ha/per person), productive land surface that sustains our consumes and absorbs our wastes.

The ecological footprint is a very good indicator of sustainability. The dates of ecological footprint are those which induce the changes. A change that will make us to live in harmony with environment, and without we cannot live.

“We have much need of nature that its need us” an Islam leader said in 1990.

The world population is twice bigger beginning with 1950, and the consumption increased in a faster rhythm. The oil consumption increased seven times in the latest 50 years; meat, fish consumption more that four times. In the same rhythm dioxide carbon emission increased in the same way. Human resource consumes 20 times faster comparative with their resource renewable capacity.

Now days, the Earth population is around 6 milliard people. The population increase number is more eloquent in poor counties. Those countries resources are put under consume pressure, determining food demand crisis and generation and accentuate ecological decline.

Regarding ONU projection, that was made last year, till 2050 the Earth population with rise at 9.30 milliard people, 97% of developed countries population number increases. The wastes quantity per person in America doubled in the last 40 years. In entire world, huge quantities of wastes are generated by industry. In the middle 90, EOCD countries, considered as being the richest in the world were producing almost two tones of wastes in one year. The African countries produce few wastes comparative with above date, but two third of them are not recycled or neutralized.

Urban population is in expansion. Almost half of the world population is live now days in cities this number will grow in the future. The cities are a wonderful place for living – full of life, dynamic, and many possibilities. But in the same time are overcrowded, dirty and stressful. Cities cover less than 2% of total surface of the planet, but use 75% of its resources. In other words, they have a considerable “ecological footprint”
London ecological footprint, for example, is 120% more than city surface.

Global ecological footprint calculated by Living Planet Report 200, between 1960 and 1990, increased with in 57%, yearly by 1.5%. This ecological footprint increasing indicates the fact that in the middle 70 the humanity overcame the limits of its carrying capacity.

World average ecological footprint in 1999 was 2.28 ha/per person, indicating an ecological deficit by 0.38 ha/per person. By other words the humanity in 1999 was with 30% bigger than ecological productive land surface. This deficit could not be maintained for a long time because will induce inevitably to a natural resource extinction.

<table>
<thead>
<tr>
<th>Countries</th>
<th>Ecological footprint Ha/per person</th>
<th>Ecological productive surface Ha/per person</th>
<th>Ecological deficit/Surplus Ha/per person</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States</td>
<td>9.60</td>
<td>5.5</td>
<td>-4.1</td>
</tr>
<tr>
<td>Holland</td>
<td>5.6</td>
<td>1.5</td>
<td>-4.1</td>
</tr>
<tr>
<td>Australia</td>
<td>9.4</td>
<td>12.9</td>
<td>3.5</td>
</tr>
<tr>
<td>Germany</td>
<td>4.6</td>
<td>1.9</td>
<td>-2.8</td>
</tr>
<tr>
<td>France</td>
<td>5.3</td>
<td>3.7</td>
<td>-1.6</td>
</tr>
<tr>
<td>Italy</td>
<td>3.8</td>
<td>1.3</td>
<td>-2.5</td>
</tr>
<tr>
<td>China</td>
<td>1.4</td>
<td>0.6</td>
<td>-0.8</td>
</tr>
<tr>
<td>India</td>
<td>1.0</td>
<td>0.5</td>
<td>-0.5</td>
</tr>
<tr>
<td><strong>Romania</strong></td>
<td><strong>2.52</strong></td>
<td><strong>0.74</strong></td>
<td><strong>-1.78</strong></td>
</tr>
</tbody>
</table>

Source: Calculated after Living Planet Report dates, 2000

Analyzing the ecological footprint for some industrialized stat, by deficit point of view (or just for surplus, only in Australia case!), could be observed (see Table no.1), are the countries with a considerable ecological deficit, the case of the United States that has an ecological footprint by 9.6 ha/per person and a 4.1 ha/per person deficit, same deficit for Holland but as is well known for another reasons, with 5.6 ha/per person deficit and with
1.5 ha/per person ecological land surface available. Romania has an ecological deficit by 1.78 ha/per person being at an European average level. Other countries, especially the underdeveloped from Africa and Asia have low ecological footprints. Ethiopia by example has 0.78 ha/per person ecological footprint.

Around this concept were involved many discussions, being considered that this indicator could be used as sustainability indicator and could measured how far a nation, a region or a city, could be placed o a sustainable development direction.

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The concept of ecological footprint was elaborated by a researcher group from British Columbia University, department of Regional Planning under the coordination of William Rees and Mayhis Wackernagel.

The concept of ecological footprint seems to be quite simple, because those researchers found a way to express the energy consumption, air pollution, material and nonmaterial goods consumption and other goods consumption that had an impact upon environment as “land consume” does mean “footprint”.

This type of calculations could be made for entire nations or for the entire world and even for small entities, frequently is calculated the ecological footprint for certain cities or for a group of cities, in our case for a region, Region V West of Romania.

The ecological footprint reveal the consume sustainability for a community and its impact on natural land availability.

Between unumbered calculations that were made to answer the question about the human impact upon Earth, one of the most interesting one is the one who is based on ecological footprint calculation.

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The ecological footprint of any nations is expressed through land surface, ecological productive, occupied exclusively only for produce resources for people and to assimilate their wastes. By other words, the ecological footprint tells us “how much nature” we use to sustain out lifestyle.

Most of the cases the cities “consume” a larger surface that is available for them and this fact involve a natural stock “transfer” phenomenon. The ecological footprint is the ecological productive land surface for a community, but the surface where that community is living (village, city, county, so on) is not the same. The land surface ecologically productive could be calculated making a difference between total land surface and the one which is not productive, or is covered with water, sterile lands, streets, and so on. The agricultural surface represents very well the ecological productive land, but not all land surfaces are ecologically productive, because of excessively fertilizers administration, wastes deposits, and so on.

Transferable ecological footprint is the difference between total footprint and the localized one. The total ecological footprint resulted for a certain locality, does mean the ecological productive land needed by a locality to deploy its activities at a certain level and for certain standards, and the localized one is ecological productive land surface which is available or that locality. The difference between them is positive if we have “an ecological surplus” and is negative if we have “an ecological deficit”.

The ecological deficit measures the ecological footprint which exceed the ecological capacity local available. To the local ecological deficit is added the ecological capacity of other localities, usually placed in the neighborhood.

The ecological surplus measured in quantity the local ecological capacity, which exceeds the estimated ecological footprint for that area. This “excess” is usually utilized for other areas laced in an ecological deficit.

We wouldn’t describe V West Romanian region in this paper and ecological footprint calculation methodology, we would only present the ecological footprint results for this care.

The consume categories that are taken in consideration to evaluate the ecological footprint are the following:

- Food;
- Home;
- Transport;
- Consume goods;
- Services.

Each category and under-category will give a certain ecological footprint, resulted by a sum of land surface using this typology:

- Land for energy;
- Arable land;
- Land for pasture;
- Degenerated land;
- Land for forests.

To each category will be added marine resources consume, this being transformed in surface.

For each consume category that was taken in consideration, expressed through certain measure units, it has to be determined the life cycle and the consequences of it's consume in terms of decreasing/degradation of lands, directly and indirectly, because of incorporated energy in consume goods and services. By example, in the cattle of cattle meat consume, we have to consider the pasture land surface that is necessary to sustain the farm and all the inputs that are necessary to sustain the entire farm.

In fact this calculation is very complex, by due the researches that were made in this field, many relations were well defined, relations between different consume types and different land types, the calculation was considerable simplified.

Mathis Wackernagel and other researchers’ studies for the first time and defined this concept of “ecological footprint”, individualized at least three methods that could translate the energy in land surface. Two methods are based on the land surface calculation that is necessary to produce, in a sustainable way, a substitution for fossil fuels (as an example the ethanol), and the third method is based on he land surface calculation to make an absorption of carbon dioxide that was generated by fossil fuels. Through this three methods we can get close results and we can tell that one hectare of ecological footprint is generated by 80-100 Giga Joule consume.

Leading those dates, once we know the energy that is incorporated in different goods, the ecological footprint quota could be allocated to “land for energy”.

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In this study was used as a reference the calculation sheet made by Mathis Wackernagel and D. Richardson.

Analyzing the results we can conclude that the “ecological footprint” for Romania (2.25 ha/per person) is bigger that the world one (2.28 ha/per person), a fact that is not very enjoyable, even if it is under the level of many countries. The calculation results reveal that the ecological footprint for V West region is bigger that the world and the national one.

Source: Calculation sheet of ecological footprint

From the ecological footprint analyze in V West region, results that 32% of the consume expresses in land surface is generated by agricultural land consume, 31% of pasture land surface consume and 25% land consume for energy (see Table no. 2 and Figure no.2).

The ecological footprint for one person in V West region (2.8 ha/per person) represents 111% by the Romanian average number and 123% by the world one.
Table no. 2

Ecological footprint for V West region on components and biodiversity

<table>
<thead>
<tr>
<th>Surface in categories (ha)</th>
<th>Energy</th>
<th>Agricol</th>
<th>Pastures</th>
<th>Forests</th>
<th>Degrad.</th>
<th>See</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ecological footprint generated by food consume</td>
<td>0.38</td>
<td>0.85</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.14</td>
<td>2.23</td>
</tr>
<tr>
<td>Ecological footprint generated by non-food consume</td>
<td>0.33</td>
<td>0.05</td>
<td>0.00</td>
<td>0.08</td>
<td>0.10</td>
<td>0.00</td>
<td>0.57</td>
</tr>
<tr>
<td>Bioproductivity</td>
<td>1.1</td>
<td>2.8</td>
<td>0.5</td>
<td>1.1</td>
<td>2.8</td>
<td>0.2</td>
<td></td>
</tr>
<tr>
<td>Ecological footprint</td>
<td>0.71</td>
<td>0.90</td>
<td>0.86</td>
<td>0.08</td>
<td>0.10</td>
<td>0.14</td>
<td>2.80</td>
</tr>
<tr>
<td>%</td>
<td>25</td>
<td>32</td>
<td>31</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Calculation sheet of ecological footprint

Comparatively this numbers with a citizen from Bangladesh is at 4667% (Bangladesh has the ecological footprint at 0.06% ha/per person, and...
comparative with an American citizen ecological footprint is 31% (in United States the ecological footprint is at 9.06 ha/per person).

Analyzing the ecological footprint on consume typologies the biggest part is determined by food consume that is expressed in agricultural land surfaces and less in non-food consume (see Figure no. 3).

Figure no. 3
Ecological footprint for V West region on consume typologies

V region territory is at 3 203 4000 ha and the necessary surface to sustain the actual level of activities is 5 714 954ha, with 78% ecological deficit.

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The actual standard of the world tourism has given the possibility of achieving a high quotation in informational technology, that requires sharp information, actual data and exact numbers: this must be clear and not ambiguous, deprived of any literary emphasis, which is less appreciated by the actual public. The tourist wants to be sure about the different information he receives in regard to the planned travels. This implies a permanent and continuous updating of the calendar’s events, of the means hours, of the hotels prices and other usual expenses, taking into account the possibilities offered by the chosen place.

**Key words:** promotion, touristic resources, “Portile de Fier”

The touristic publicity has a particularity that clearly distinguishes itself from the commercial publicity. For many times, the later tends to determine an usage, namely types of behavior that are similar to those from the past and in the same condition. The non-touristic consumer acts according to ordinary patterns without making decisions or assessing the advantages and inconveniences of the new alternatives that are suggested.

On the contrary, there is a natural tendency in tourism that opposes habits setting, repeated use of services of one and the same place. It is indeed “the dream” or “bewilderment” that are connected to the touristic need and, thus, naturally determine the consumer to seek the novelty that is able to break the daily routine. Therefore, in most cases, the tendency is to fulfill “the dream” and “the need of bewilderment” by moving off to new places rather than setting the patterns of normal behaviour.

The touristic publicity acts in a way that is different from that of commercial publicity: first it will be favored - if there is the need to impose

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itself to the consumers of the new areas or place after that it starts to meet more and more difficulties, as it tries to promote the one and the same sights. The objectives of publicity are the following:
- To draw the attention towards the area;
- To arouse the desire;
- To stimulate the action;
- Contribution to the satisfaction of the trip;

The last two steps contain the information that should lead to action the possible tourist.

The actual standard of the world tourism has given the possibility of achieving a high quotation in informational technology, that requires sharp information, actual data and exact numbers: this must be clear and not ambiguous, deprived of any literary emphasis, which is less appreciated by the actual public. The tourist wants to be sure about the different information he receives in regard to the planed travels. This implies a permanent and continuous updating of the calendar’s events, of the means hours, of the hotels prices and other usual expenses, taking into account the possibilities offered by the chosen place.

The information has to be reliable, actual, concrete, namely true. It has a decisive role for taking the final decision that will turn the tourist from possible tourist into a consumer of the product called “Portile de Fier”.

Taking into account the conditions that are specific to this sight, we may consider it is only in the stage of promotion. For it’s development and launching in this field a sustain campaign of promotion and publicity it is absolutely required because not all the sight’s attractions are well known.

The popularity of the sights to be arranged for the next visit must be carried on in due time, for the moment they are in use, the interest for them has already aroused.

There are a lot of means of direct publicity which support the tourism development, such as: invitation of radio, TV, cinema, central and local press – especially the newspapers from counties in which there have been made offers of programs – of the specialty publications and other publications of large circulation etc., as well as tourism international organizations for visiting the area, respectively of each new arranged sight, for the purpose of presenting them to the great public, of informing the tourists about the services and programs ready to be practiced once these
sights are applicable. All the guests will receive portfolios with pictures from the area or with different sights, folders etc.

In general, this meeting must be carefully prepared having in mind it will be full of information and operational at the same time. Its success relies on the atmosphere, the quality of exposures and information, and the standard of discussions.

Such meetings can be also made with foreign companies representatives from Baile Herculane (these being the best advertisers of the sights among the foreign tourists that are in the station) or with “Djerdap Turist” and press representatives from Belgrade, Kladovo, Negotin, Nis-Bor etc.

The articles from the monthly or weekly magazines in daily press of the county etc will be published along the construction of the arrangements of the new sights in the area, on their completion and when they are commissioned.

The communications may be articles, reports, adverts etc. They have to fit the publications they address for and to maintain always awake the tourists interest, which must be regularly supplied with information regarding the stage of the works and the date of their completion etc.

It is advisable that all materials to be printed in press should have an attractive title, which resumes the information. The text should be short, simple and easy to understand, avoiding, as much as possible, the scientific terminology. The material must have pictures from the area or of the new sights, rather original elements, which should arouse especially the public’s curiosity, seeking to suggest more than the information itself.

The publication of folders and brochures that may be distributed when commissioned the different sights. They will present in a realistic but attractive manner the main information of the area and its sights, supplying the tourists with technical data regarding the access in the area, the possibilities of accommodation, entertainment, costs etc.

Because the folder represents an important means of information for the tourists it must be realized in special graphic conditions and it should contain concrete and precise data that may be encountered and recognized on the spot, any distortion of reality having a negative impact on the tourists.

The aim referred to by the folders and brochures should not be for publicity, but contain information and arouse the interest for travels. The
folder must contain maximum of information in a small space, which should be presented concisely and attractively, with colored photos, so that it stimulate the decision to travel.

These publications should take into consideration that they address to a heterogeneous public, whether socially, economically and nationally, or behaviorally.

The photos should not prevail over the role of information. Referring to the visual aspect of the text, the publicity was “literary” in the last century, and the eloquence and the confusion were its most precious associates. Nowadays, you must strike and have in mind an image that should be remembered for its effect of surprise or repetition. This image doesn’t require anymore thinking at but only adhering to it. It imposes a simple notion through an optimum shock. Through the eyes it acts towards a fraction of the spirit. Information should become “catching” by the text dynamics; by using the image; by the graphic and cartographic interpretation.

These folders should be on the sights they present and should be distributed through the whole tourist net in the country, but greatly in the bordering counties.

The fliers, a means of publicity used on commencing the activity to the newly arranged sights or on the invitation of visiting the area, should be printed in great circulation and distributed among the tourist agencies in the district’s area and its neighborhood, having in view their spreading towards all access points for the tourists in the area.

The adverts concerning the area or the commencement the activity to the new sights should be suggestive, glaring, attractive and entertaining. They should be exposed on all sights from the economic units and schools, sports grounds, advertisement panels etc.

It is well known that the advertisement was called the visiting card of a country or region; therefore, we appreciate as being extremely important to find a symbol that synthesizes the specific of “Portile de Fier” through a single image, the same for many points of attraction. It should convince the tourists towards the originality, particularity and interest that sight presents, by the clarity and functionality of the propaganda. Only a global and interesting presentation can distinguish “Portile de Fier” from the other areas, creating a request for the places and sights in this part of the country.
The artistic and suggestive panels should be put along the roads in the area simultaneously with the commissioning of a sight through which is drawn the attention of the tourists.

The guide of the area, of a city or station in the area should present the scientific, technical or touristic aspects related to the area, city, station or the sight it stands for.

Because these guides are papers of reference, they should be correct from the scientific point of view and should have high quality pictures, precise, concise and concrete drawings, maps and plans.

Such guides should not be missing from the specialty units in Drobeta Turnu-Severin, Orsova and Baile Herculane or places from the touristic terraces in the area, and from economic units of each sight.

The album of photos that can be distributed in all bookstores across the country should contain very beautiful pictures showing the most important sights in the area.

The calendars and agendas for the following years published by the Ministry of Tourism must include pictures from the area of “Portile de Fier”.

Besides the means of direct publicity there is a series of audio-visual means that can contribute to the area’s popularization:

- Broadcasting national or local radio programs in different places from the country, in which are showed the main attractions of the sights or it can be given information for well known scientists and tourist agents; such programs may be carried on periodically;

- Advertisements and documentaries that can be presented on screens at cinemas or on TV should illustrate aspects from the whole area or one sight only. As new sights are arranged they may be recorded in different stages of works and on their completion, underlining their characteristics and the access to them, the ground etc. These films will emphasize the originality and oneness of some of the sights or of their surroundings, the beauty of the natural frame, and ethnic and folkloristic elements from the area etc.

Because the films give a full image of the contemplated sight and represent one of the most significant advertisements, they should be carried on very professionally.

- Itinerant exhibitions with pictures of the area and of its touristic attractions. They must be shown in various economic units, schools from the
bordering counties or other places which might attract tourists (Hunedoara, Brad, Deva, Cluj-Napoca, Turda, Oradea, Brasov, Sibiu, Pitești etc.), to the seaside (during summer), in some larger watering places (Sinaia, Predeal, Poiana Brasov, Paltinis), at the hotels on Semenic mountain, Poiana Brasov, Paltinis).

The need for such important steps in the tourism development impose that tourist agencies undertake a more dynamic activity in order to attract the tourists in the area. Thus, we consider these should contact a series of tourist agencies in the counties, schools and big enterprises to which they should present the fliers, brochures etc according to requirements of the future customers.

Such “insistent” actions should permanently take place at the offices of the possible beneficiaries for trips of more than 5-7 days.

Similarly, a sustained policy should carry on in the hotels from the area in order to attract their customers at the programs of 2–4 hours.

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THE ECONOMICAL-FINANCIAL EFFICIENCY OF TOURISM IN THE AREA “PORTILE DE FIER”

EFICIENȚA ECONOMICO-FINANCIARĂ A CIRCULAȚIEI TURISTICE ÎN ZONA “PORȚILE DE FIER”

DANIELA LAZAR*, R. BOTAȘ*

On the other hand, the increase of economic efficiency in tourism is also bounded to the expenses for carrying on of these specific activities, which lead to labor saving. A good management of the grounds in tourism implies not only the total use of production capacity, but also sustained actions in order to eliminate non-reasonable expenses and water leaking from plants that are out of order, futile use of fuels and electric energy, in order to avoid some food deterioration because of their suitable non-conservation or aggregates deterioration, the reduction of additional affected expenses that are caused by the wrong maintaining, immobilization of funds that produce credits and increased interests.

Key words: economical-financial, efficiency, tourism, “Portile de Fier”

The Ministry of Tourism, the local authorities in connection with the surveys of Bosnia-Hetzegovina have carried on researches related with the touristic utilization of the southwestern region of the country in order to establish the future of tourism in the area of “Portile de Fier”.

Limiting the conclusions of these surveys to the area of “Portile de Fier” and taking into account all the influencing factors and multiple reasons that determine the tourism in the region, for 2007, and the referential data from 1997. For this we have estimated only the tourists who have stayed a night over at the accommodations in Mehedinti County and on Baile Herculane.

According to this prognosis, the data of the suggested alternative (minimum and maximum) are presented in Table 1.

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### Tabel 1
The approximate calculation of economic and financial efficiency of tourism in the touristic area „Portile de Fier” in 2007

<table>
<thead>
<tr>
<th>Nr</th>
<th>Specifications</th>
<th>U/M</th>
<th>Tourism of circulation</th>
<th>Balneoclimateric vacation in Băile Herculane</th>
<th>Total tourism</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Total number of tourists: - out of which:</td>
<td>Thousands</td>
<td>280</td>
<td>120</td>
<td>400</td>
</tr>
<tr>
<td>2</td>
<td>Romanian</td>
<td>Thousands</td>
<td>210</td>
<td>90</td>
<td>300</td>
</tr>
<tr>
<td>3</td>
<td>Foreigners</td>
<td>Thousands</td>
<td>70</td>
<td>30</td>
<td>100</td>
</tr>
<tr>
<td>4</td>
<td>Tourist days: - out of which:</td>
<td>Thousands</td>
<td>399</td>
<td>1401</td>
<td>1800</td>
</tr>
<tr>
<td>5</td>
<td>Romanian</td>
<td>Thousands</td>
<td>315</td>
<td>1185</td>
<td>1500</td>
</tr>
<tr>
<td>6</td>
<td>Foreigners</td>
<td>Thousands</td>
<td>84</td>
<td>216</td>
<td>300</td>
</tr>
<tr>
<td>7</td>
<td>Medium vacation - out of which:</td>
<td>Days</td>
<td>1,4</td>
<td>11,6</td>
<td>4,5</td>
</tr>
<tr>
<td>8</td>
<td>Romanian</td>
<td>Days</td>
<td>1,5</td>
<td>13,1</td>
<td>5,0</td>
</tr>
<tr>
<td>9</td>
<td>Foreigners</td>
<td>Days</td>
<td>1,2</td>
<td>7,2</td>
<td>3,0</td>
</tr>
<tr>
<td>10</td>
<td>Cashing in per day - romanian</td>
<td>ROL</td>
<td>100</td>
<td>60</td>
<td>-</td>
</tr>
<tr>
<td>11</td>
<td>Cashing in per day - foreigners</td>
<td>$</td>
<td>17</td>
<td>19</td>
<td>-</td>
</tr>
<tr>
<td>12</td>
<td>Total cash - out of which:</td>
<td>ROLThousands</td>
<td>48208</td>
<td>115884</td>
<td>164092</td>
</tr>
<tr>
<td>13</td>
<td>Romanian</td>
<td>ROLThousands</td>
<td>31500</td>
<td>70740</td>
<td>102240</td>
</tr>
<tr>
<td>14</td>
<td>Foreigners</td>
<td>$ Thousands</td>
<td>1428</td>
<td>1401</td>
<td>5532</td>
</tr>
<tr>
<td>15</td>
<td>Costs per romanian</td>
<td>ROL/Days</td>
<td>96</td>
<td>58</td>
<td>-</td>
</tr>
<tr>
<td>16</td>
<td>Costs per foreigners</td>
<td>ROL/Days</td>
<td>140</td>
<td>170</td>
<td>-</td>
</tr>
<tr>
<td>17</td>
<td>Total costs - out of which:</td>
<td>ROLThousands</td>
<td>42000</td>
<td>105102</td>
<td>147102</td>
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<tr>
<td>18</td>
<td>Romanian</td>
<td>ROLThousands</td>
<td>30240</td>
<td>68382</td>
<td>98022</td>
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<tr>
<td>19</td>
<td>Foreigners</td>
<td>ROLThousands</td>
<td>11760</td>
<td>36720</td>
<td>48480</td>
</tr>
<tr>
<td>20</td>
<td>Total benefits - out of which:</td>
<td>ROL Thousands</td>
<td>6208</td>
<td>10782</td>
<td>16990</td>
</tr>
<tr>
<td>21</td>
<td>Romanian</td>
<td>ROLThousands</td>
<td>1260</td>
<td>2358</td>
<td>3618</td>
</tr>
<tr>
<td>22</td>
<td>Foreigners</td>
<td>ROLThousands</td>
<td>4948</td>
<td>8424</td>
<td>13372</td>
</tr>
<tr>
<td>23</td>
<td>Total rentability rate - out of which:</td>
<td>%</td>
<td>12,9</td>
<td>9,3</td>
<td>10,4</td>
</tr>
<tr>
<td>24</td>
<td>Romanian</td>
<td>%</td>
<td>4,0</td>
<td>3,3</td>
<td>3,5</td>
</tr>
<tr>
<td>25</td>
<td>Foreigners</td>
<td>%</td>
<td>29,5</td>
<td>18,7</td>
<td>21,8</td>
</tr>
<tr>
<td>26</td>
<td>Other benefits from visiting museums, transport taxes, oils, selling goods, organised tourism</td>
<td>ROL Thousands</td>
<td>-</td>
<td>-</td>
<td>3000</td>
</tr>
<tr>
<td>27</td>
<td>Total general benefits</td>
<td>ROLThousands</td>
<td>-</td>
<td>-</td>
<td>19990</td>
</tr>
<tr>
<td>28</td>
<td>Investments 1997-2007</td>
<td>ROL thousands</td>
<td>-</td>
<td>-</td>
<td>50000</td>
</tr>
<tr>
<td>29</td>
<td>Recovering the investment</td>
<td>Years</td>
<td>-</td>
<td>-</td>
<td>2,5</td>
</tr>
</tbody>
</table>
Thus, the prognosis for 1997, regarding tourism, takes into consideration both the perspectives of region’s development – the new hydroelectric plant Portile deFier II, with a new border crossing point, important economical-social objectives that will be built in the future, and the dynamics of the tourism.

It has also been taken into account the fact that increasing the vehicles number, the border crossing points and improving the traffic and the railway traffic lead to a decrease of the medium holiday, but, at the same time to the strong increase of tourism and tourists. It has been taken into consideration an increase in number of tourists according to the dynamics, which is founded on workers income increase, reduction of working week, improvement of the comfort.

Thus, according to this alternative it was stipulated an increase of almost three times the number of tourists given the situation in 1997, respectively 400000 in 2007, and in the case of foreign tourists for almost seven times more. This evolution may be explained by the access conditions in the area. The increase of the foreign tourists number, from 13900 in 1997 up to 100000 in 2007, may be found in the dynamics, especially that the foreign tourists number that passed in the area is much bigger, but they didn’t use the accommodations in order to be registered.

According to this alternative and taking into account the dynamics, it has been stipulated that 70000 foreign tourists to be on transitional tourism, with a medium holiday of 1-2 days, and other 30000 to use Baile Herculane, with a medium holiday of 7,2 days. When establishing the holiday it has been taken into consideration the tendency of reducing the holiday determined by transport facilities, by the desire to know as many places in the country and abroad.

According to the suggested alternative, the cashing on a tourist/day (accommodation, meals, visits) was stipulated at 100 new lei for intern tourists and 60 new lei for watering stations. For the first category it has been taken into account the cost of accommodation at the hotel, two meals a day and a visit to the museum or a show, and the average costs for treatment and resting, related to the categories of comfort, for the second category. In both cases it has been taken into account the standard of people’s incomes in 2007, which will be increased, thus the number estimated is minimum.

For foreigners the price is 15 dollars for traveling tourism (an average between the expensive accommodation and the non-organized one)
three meals a day, some hotel services, a visit to the museum or a show. The estimated cashing is 17 dollars a day for a foreign tourist. For the watering tourism the estimated cost is of 17,2 dollars a day having in mind the additional expenses for treatment and other specific expenses related to this kind of tourism. In the case of foreign tourists it has been estimated the minimum cashing without additional expenses for goods, handicraft and pleasure.

On the basis of these indicators there have been estimated the total cashing in new lei and in dollars as being 164100 thousand new lei, out of which 48200 thousand new lei from the traveling tourism and 1159000 thousand new lei from watering tourism. The cashing from the second group of tourists are influenced by the estimated holiday’s extent of 7,2 days.

The establishing of expenses in the case of Romanian tourists has taken into account the actual profitableness, and in the case of the foreign tourists the expenses were increased much more than for the intern tourists. The greater profitableness from the foreign tourists comes from accommodation, where the expenses were a little bit greater than the one from the intern tourists, bear by the tourist agencies that cash increased costs.

From these calculations resulted an average profitableness of 10,4% out of which 3,5% Romanian tourists and 21,6% foreign tourists resulting a favorable efficiency.

According to this alternative, the benefits obtained from tourists registered at the units from Drobeta Turnu-Severin, Orsova and Baile Herculane will raise to 16990000 new lei in 2007, to which there may be added other benefits obtained from merchandise selling, visits to museums, vehicles, recreation, auto services, fuels securing, from public alimentation of the non-organized tourism etc., estimated for 2007, to the amount of 3000000 new lei, out of which results a financial efficiency of almost 2000000 new lei.

Taking into account these benefits may be obtained in 2007 with the grounds and endowments, partly, existing and with additional investments of maximum 5000000 lei, these investments depreciate to in less than three years.

International tourism brings the greatest incomes and there from the need to increase the means of promotion abroad the Romanian touristic values of the area and the extension of cooperation with the neighboring
countries in order to develop the tourism of the entire region.

As it is proved by the experience, by international tourism the internal resources are very well valorized. International tourism is an export “on the spot”, that doesn’t imply additional costs as for goods export, that must be carried to the border.

International tourism has the quality of cashing currency while the goods export affects the development of food industry and textiles, transports, commercial net, services determine the complete use of labor and the improvement of the services quality.

The increase of economic efficiency in tourism is directly bounded to the increase of cashing, that is obviously, a consequence of increasing in tourism, tourists and their requirements. The services quality is an essential factor for cashing, knowing the numbers of tourists in places and creates perfect conditions of accommodation and food. In order to assure the presence of foreign tourists in the stations and regions launched in tourism, the question of quality is much more important than that of promotion and advertisement.

On the other hand, the increase of economic efficiency in tourism is also bounded to the expenses for carrying on of these specific activities, which lead to labor saving. A good management of the grounds in tourism implies not only the total use of production capacity, but also sustained actions in order to eliminate non-reasonable expenses and water leaking from plants that are out of order, futile use of fuels and electric energy, in order to avoid some food deterioration because of their suitable non-conservation or aggregates deterioration, the reduction of additional affected expenses that are caused by the wrong maintaining, immobilization of funds that produce credits and increased interests etc.

The techniques and methods of marketing are strongly connected to the tourism efficiency in the area because the offer, without a careful analysis of tourism, may bring negative effects.

The touristic marketing is a system of management which implies planning and controlling the activity by using of the means that are available, as a set of operations which provides scientific survey of the market, in order to mould the tourist offer, according to the tourist needs and reasons.

The marketing policy in the area of “Portile de Fier” should globally focus on the economic efficiency, on international relations and on social
conditions of Romanian people. Therefore, the prognosis of 2007 has taken into account the touristic concourse of events, the services that are preferred by the tourists, the grounds and its possibilities of development, the cooperation and even competition with the neighboring countries.

The touristic marketing in the area imposes definition of programs that provide the volume of benefits, at the minimum standard at least. In order to achieve this aim, there have been suggested a series of programs and measures that contribute to the increase of tourists number, the inspection of the existing and future grounds, as well as of the benefits and profitableness.

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This section presents a mountain county from Caras-Severin: current situation in this area, development strategies used S.W.O.T. analyses for this mountain area and finally proposals for developing key point of attraction.

Key words: development, strategy, mountain, infrastructure.

CURRENT SITUATION IN THIS AREA

The structure of the Caras - Severin county: 48% of the county area is forests, which represents 6.1% of the Romanian forests. The forest area to be exploited is about 700,000 mc of wood/year, and here can be found a variety of fruit, animals for hunting and fish.

This area includes mountains groups; depressions; hills and planes. Receive structures. Number of places for camping and accommodation

The accommodation capacity has been analyzed based on a large area: Caras-Severin County and the west side of Portile de Fier waste weir in Mehedinti County. The region disposes of 10,500 accommodation places, which represent 3.1% of the entire capacity in the country. It is overflow just by some other counties as Constanta, Bucuresti, Brasov, Prahova, which are part of tourist destinations of the country. Between 1980 and 1989 there was a huge trend in building new tourist units and accommodation places.

The evolution of tourist units and accommodation places is presented in the following table.

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* Politehnica University of Timisoara
** Romanian - American University, Bucuresti
Table 1 The fulfilling rate in all tourist resorts

<table>
<thead>
<tr>
<th>Resorts</th>
<th>Percentage [%]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Semenic Mountains</td>
<td>45.2</td>
</tr>
<tr>
<td>Crivaia</td>
<td>35</td>
</tr>
<tr>
<td>Trei Ape</td>
<td>34.3</td>
</tr>
<tr>
<td>Gârâna</td>
<td>48.6</td>
</tr>
<tr>
<td>Muntele Mic</td>
<td>17.6</td>
</tr>
</tbody>
</table>

If we take into consideration the Poiana Mărului - Muntele Mic region and the Bâile Herculane resort, the structure of the accommodation capacity changes.

Figure 2 Evolution of accommodation units

This is a consequence of the fact that the villas were modernized and the rooms were changed to 2 or 3 places. The mountains shelters have not changed although the owners have changed the location of the factories.
from Resita and the county; their place has been taken by modern accommodation units (Semenic tourist resort).

The capacity of the accommodation units is full time used. The mountains shelters represent 19.8% of the accommodation places. The distribution of accommodation units on mountains peaks is: 6.3% Semenic Mountains and 4.1% Muntele Mic - Târca.

Most of accommodation units are large hotels followed by middle-sized ones.

Tourist utility index, considered extremely important by Pierre Defert is calculated by the formula:

$$\text{It} = \frac{\text{Number of places}}{\text{Population}} \times 100$$

Applying the tourist utility index for the tourist places from the Banat Mountains we’ll obtain the following values: Vâlug – $\text{It} = 55.9$; Brebu Nou - $\text{It} = 10.7$; Bozovici - $\text{It} = 4.7$; Orșova - $\text{It} = 1.6$; Anina - $\text{It} = 1.8$ compared to 0.5 for Caransebeș, 1.3 for Reșița and 1.1 for Oravita.

Table 2 The mountains shelters distribution by altitude regions.

<table>
<thead>
<tr>
<th>Mountains Shelter</th>
<th>Capacity</th>
<th>Mountain Peak</th>
<th>Altitude</th>
</tr>
</thead>
<tbody>
<tr>
<td>Muntele Mic</td>
<td>223</td>
<td>Târcu</td>
<td>&gt;1500 m</td>
</tr>
<tr>
<td>Semenic</td>
<td>306</td>
<td>Semenic</td>
<td>1500 – 1000 m</td>
</tr>
<tr>
<td>Gozna</td>
<td>154</td>
<td>Semenic</td>
<td>500 – 1000 m</td>
</tr>
<tr>
<td>Trei Ape</td>
<td>152</td>
<td>Semenic</td>
<td>501 – 1000 m</td>
</tr>
<tr>
<td>Barzava</td>
<td>130</td>
<td>Semenic</td>
<td>501 – 1000 m</td>
</tr>
<tr>
<td>Marghilă</td>
<td>62</td>
<td>Aniene</td>
<td>501 – 1000 m</td>
</tr>
<tr>
<td>Constructorul</td>
<td>40</td>
<td>Semenic</td>
<td></td>
</tr>
<tr>
<td>Turist</td>
<td>60</td>
<td>Semenic</td>
<td></td>
</tr>
<tr>
<td>Splendid</td>
<td>16</td>
<td>Semenic</td>
<td></td>
</tr>
<tr>
<td>Stejarul</td>
<td>26</td>
<td>Dognecei</td>
<td>under 500 m</td>
</tr>
<tr>
<td>Dunărea</td>
<td>26</td>
<td>Locvei</td>
<td></td>
</tr>
<tr>
<td>Brazi</td>
<td>28</td>
<td>Aniene</td>
<td></td>
</tr>
<tr>
<td>Cerbu-Brandușa</td>
<td>55</td>
<td>Aniene</td>
<td></td>
</tr>
</tbody>
</table>

By using these indexes we can notice the importance of the tourism in the region, and how it depends on the region.
Also, can be remarked the tourist resorts percent in the Semenic Mountains, which is: Semenic 6.3%, Crivaia 6.5%, Trei Ape 1.8%, while the Poiana Mărului resort is 5.7% and Muntele Mic resort is 4.1%. All these previous locations are becoming powerful health resorts.

The accommodation capacity distribution is tightly bounded with its size.

A complex structure is found only in Băile Herculane resort, which is the most important one. It includes hotels, relaxation and treatment villas. This structure reaches up to 59.6% from the total.

For reckoning the accommodation capacity by comparison to other regions we have applied the used rate and the utility index, using the following formula:

Table 3 Indicators for rate and the utility index

<table>
<thead>
<tr>
<th>Iu = Nir/ Nip x 100</th>
<th>Nip = Np x 360</th>
</tr>
</thead>
<tbody>
<tr>
<td>Iu-the capacity used index;</td>
<td>Np - number of accommodation places</td>
</tr>
<tr>
<td>Nir-number of used places;</td>
<td>Nip-number of possible used places;</td>
</tr>
</tbody>
</table>

Analyzing the rate of hotels’ utilization (which is 63.0%), we can conclude that there is a need for a new accommodation places to be built.

S.W.O.T. ANALYSES FOCUSED ON THIS MOUNTAIN AREA

<table>
<thead>
<tr>
<th>STRENGTHS</th>
<th>WEAKNESES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive Elements of the Area</td>
<td>What Is Missing In This Picture?</td>
</tr>
<tr>
<td>✓ The various landforms in the Cares</td>
<td>✓ An acute need of more funds, necessary</td>
</tr>
</tbody>
</table>

320
Severin county;
- An existing tourist infrastructure in this area;
- Communication forms available;
- The possibility of practicing different tourism forms.

**OPPORTUNITIES**

*What Could Be Done For This Area?*

- Capitalizing on the entire tourist potential of the Banat mountains, drawing the investors’ attention on the potential of the area;
- Advertising this mountain area in Romania and abroad;
- Revamping each zone in this area;
- Organization and systematization of the tourist area;
- Increasing the degree of accessibility to the area through the development of access ways; develop
- Developing new accommodation places and pleasure resorts.

**THREATS**

*What Are The Threats?*

- The degradation level of the existing tourist infrastructure;
- The low number of investors willing invest in Romanian tourism;
- The unstable economic and legislative environment in Romania.

**PROPOSALS FOR DEVELOPING KEY POINTS OF ATTRACTION**

In Banat Mountains are outlined new resorts and tourist places, either for weekend tourism destination or long stay holidays, most of them with dispersal role in vicinities.

*The Semenic climatic resort* is a typical resort, which meet national and international requests, with procreative objectives of considerable values. In the resort systematization process was pursued solutions for specific requirements of the mountain resorts. First, there will be marked the skiing boundaries, and second there is the slopes approval which have to match the requirements of this sport, either for beginning and advance level or competitions. The access to the camp bases will be defined to not cross the ski slopes, designing a traffic network what will not block the slopes access. For the extension of the recreation area, we propose a skating ring to be built. This skating ring will be located in the southern region of the resort, near Gozna Mountain, where the existing springs will be co-potted.
and 2 meters high dam will be built. The resulted lake will be used for swimming during the summer time and for skating in winter.

For increasing the using time of the ski slopes, it is necessary to illuminate them.

In the southern region of the resort, where the field is flat and well illuminated by the sunlight, we propose to be developed the recreation and sport area.

In March-May and September-October periods, tourist frequentation is dramatically falling down, which has a negative effect over annual average. This happens because there do not exist a good motivation to influence the tourist to choose Semenic before others resorts. Because natural environment is not sufficient to keep the tourism at the same level, the only way of improving the situation is a diversified tourist offer. The income cash, the tourist frequentation and tourist service can be improved by conferring Semenic resort a polyvalent character in tourist offer for both tourist seasons.

For winter resorts, the main motivation is ski practicing, and the most important indicator is: meters ski slope / quarter spot.

Tidy places are primary requested by tourists besides cable transportation capacity. The cable transportation is very important too, because the tourist moves down many times along the ski slopes.

*The Crivaia climatic resort* is located in an area with compact fir forests, at an altitude of 650 m. These make Crivaia a good place for resting. On the extension of Valiug Lake, there is a hill where are located a hotel and many cottages. Between them are disposed huts and sport terrains. As a business opportunity, there can be created two halting-places, one to the tail of Valiug Lake and the other to the lakeside of Barzava. These halting-places will complete the ensemble of resort. In the location of the camp is necessary to build a small dam for Barzava stream, which will generate a swimming place.

The area location offers good conditions for creating both a resting resort and a sport resort for ski practicing. Ski can be practiced 5-6 months a year in this area. The existing ski slopes have different difficulty grades, from beginners to the most advance ski probationers. The altitude differences, of almost 800 m, offer the possibility of advance ski practicing between Semenic and Crivaia crests.
Accessibility to Semenic resort and the relief forms connecting Semenic and Crиваia resorts (high difficulty ski slopes combined with slow and long slopes) will allow them to work in compensation, even though the high season is not the same for each camp. With a cable railway connection between Semenic and Crиваia, it will be provided a way of commuting the tourists and sportsmen who are coming to practice nautical sports on Valiug Lake. The Valiug Lake offers good conditions for swimming, canoeing, yachting, and nautical skiing.

The Valiug Lake resort is settled on the lakeside with the same name, and it includes a lake and Poiana Mare. On the lakeside were arranged two villas with wharf and pontoons, a nautical sportive base, and a terrace restaurant named “Semenic”.

The nautical club is the most important settling on the lakeside, but the whole length can be arranged for recreation and sport.

To create the possibility of sunbathing, because the lakeside is amply steep, platforms and float pontoons were built. These pontoons are anchored to the lakeside and the access to them is made by bridges.

The Trei Ape resort is located on the left side of the accumulation lake with the same name. This place is designed for agro tourism, natural environment, and nautical sports. Because of its higher altitude (850 m) and his position, this resort offers a more calm landscape, with slow slopes, in comparison with the other two lakes (Valiug and Secu).

In conclusion there can be noticed an opportunity and a necessity of creating the Trei Ape resort as a polarizing center of Brebu-Garana area. To create the polarizing centre, the resort on right lakeside can be expanded near the dam, the building of a bridge over Brebu river and a cable railway which will make the connection with Semenic resort.

The Secu resort is one of the main recreation resorts of the town of Resita, especially because of the specific environment that the water mirror is creating, also thanks to multiple possibilities of recreation that are offered: sun bathing, swimming, canoeing, water skiing.

CONCLUSIONS REGARDING THE DEVELOPMENT OF A BASE FOR CARAS SEVERIN TOURIST REGION

Table 5 Conclusions

| 1. | The Mountains of Banat dispose of attractive natural and entropic resources with a high tourism value - unique in Europe; |
2. The vocation and the tourism tradition of this region of Banatului Mountains is also a result of the multicultural and multiethnic character of the inhabitants of this region;

3. Banatului Mountains are located near the highways and railways of European value.

4. The tourism region of the Banatului Mountains has a favorable geographical position because it is bordered by two transport corridors developed by the European Union in the perspective of the integration of the Central and East European countries.

5. Important Western tourism flows will be directed through the two tourism corridors that cross Arad, Timiș, Caraș-Severin and Mehedinti counties. These tourism flows must be lured to the Banatului Mountains by diversifying the tourism offer.

6. The elaboration of valuable tourism programs with a novelty character, specific to health resorts in the Banatului Mountains, inside the “après – ski” activities, trips, sport based, cultural-artistic, and entertainment activities.

7. The integration of the Banatian tourism offers in the regional, national and European tourism in the form of competitive products which are to capitalize on the highly attractive tourism resources of the Banatului Mountains.

8. The elaboration of future tourism strategies which are diversified, dynamic, adaptive, aggressive, in order to ensure the improvement of the ratings in the European tourism market.

9. The re-launching of the Banatului Mountains in the international ecological tourism as a protected region.

10. The diversification of the tourism offer by emphasizing the unique products: concerning Latinity, hunting and the Banatian crests, the Danube (Gorge) delta and the Banatian iron’s road.

11. The development of multiple attraction strategies of some of the resorts and tourism settlements by the multitude of kinds and forms of tourism that can be experienced in the zone (the rural tourism and agro tourism, hunting tourism and forest tourism, business tourism and scientific tourism, reunions, congresses, ethnical tourism, religious, ecumenical, alternative tourism, health tourism, winter sports and nautical tourism, cyclic tourism, cultural tourism, industrial tourism).

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In the broader context of preparations in view of accession to the EU structures, Romania was asked to elaborate a National Development Plan.

**Key words:** demographic evolutions, infrastructure, tourism.

Within the framework of the NDP have been identified the sectoral themes and the priorities for which financial community support is required. At the same time, it comprises also priorities and measures that will receive financing from sources other than the community funds particularly domestic financial resources.

- labour force
- privatization
- restructuring
- tourism
- demographic evolutions
- employed population
- environment
- infrastructure
- business support

The macroeconomic context of Romania in the latest year continues to show a positive trend of the economic activity. The main economic indicators are presented, spotlighting the macro-economic context, the sectoral development, human settlement network development.

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La bour force – the economics trends of the last years had a negative impact upon the social situation of the population. The rate of the registered unemployment featured a raising trend, as a result of a decrease in the employed population in economy, and particularly in industry. The population employed in agriculture still record a high share in the total number of the employed.

Privatisation and restructuring – the overall progress of the privatization process at macroeconomic level is illustrated by an increased weight of the private sector contribution in the GDP formation, both overall and by formation sources.

Sectoral economic analyses:

Agriculture- represented the main employment sector, with over 38% of the total employed population. In some of the regions, agriculture and forestry dominate the entire regional economy. In the rural areas agriculture represents the prevailing economic activity, employing almost 70% of the labour force. Agriculture is the only sector of the Romanian economy that predominantly employs aged people.

Industry- industrial production recorded a decrease, resulting from an underutilization of a large number of enterprises, along with high redundancies and restraints in demand.

Tourism- Romania has a significant tourist potential as it enjoys favorable conditions for attracting tourists. Specific indicators in this field show a modest improvement in the success of the activities of the economic undertakings with private capital. Evaluation of the tourism industry and its available resources suggests that tourism could become, under certain conditions, a strong export industry for Romania and internationally.

Human capital – Romanian population is undergoing a slow but continuous process of demographic ageing accelerated over the last 10 years as a consequence of the decrease of the birth rate. The process of demographic ageing led to the increase of the average age of the entire population. Employed population and the structure of employment, the decline of the national economy diminished employment opportunities. There has been recording a decrease in the numbers of employed persons, as well as of the activity and employment rate whilst unemployment became endemic.
Environment – the present state of the environment is chiefly attributable to the development policies adopted in Romania prior to 1989, policies which aimed at rapid economic development regardless of environmental standards and without taking due account of the possible negative effects that the economic activities could have on the environment.

Infrastructure:

Transport- Romania has an extensive and diversified transport system, requiring universal, substantial improvement. Compared to the Member States of the EU and to some of the east – european states, the Romanian transport system is insufficiently developed and of poor quality.

Telecommunication – this sector has witnessed an important improvement during the latest years, both from a quantitative and a qualitative point of view. The quality aspects concern the replacement of the old telephone exchanges waith digital ones, the introduction of mobile phones, the introduction of cable television. The infrastructure of the public utility services as well as access of the population to these services are inappropriate both at national and regional level, especially in the rural areas, and do not respect modern standards in the field.

Legal and institutional framework

During the 1998-1999 period in Romania has been created, with Phare assistance a complex institutional framework, meant to support the achievement of the regional policy objectives foreseen in the Law no 151/1998 on regional development, by observing at the same time the principles and procedures used for the allocation and management of the Structural Funds in the EU Member States, with particular attention paid to European Regional Development Fund. At central level there have been created a National Regional Development Board, as deliberative body, and a National Agency for Regional Development, with executive tasks.

Accordingly, in line with the European social and economic cohesion policy, Romania is promoting a regional policy whose wider long-term objective aims at filling the development gap between these regions and other areas of the country. Nonetheless, its short-term objective is focused on counteracting the negative phenomena which appear in the economic and especially industrial restructuring process of the economy (job losses, unemployment).
In this regard, an objective of the national regional development policy is to support regions, judets, various areas, and localities with the necessary means for enabling them to develop and economic, social, and cultural structure of a quality that will make it more attractive.

The Development Regions in Romania were created as units for implementing measures of national regional development policy.

Through its strategy, Romania National Development Plan aims at making efficient use of available human and financial resources, in order to optimise the activities undertaken in the fields relevant to regional development.

In line with the demands of the present exercise, Romania’s regional policy, through the strategy adopted in the National Development Plan for the period 2000-2006 embraces the following development axes:

- improvement of the Regional Economic Structure
- improvement and development of infrastructure
- human resource development
- tourism development
- scientific research, technology development and information society
- social and economic development of rural areas
- business support
- information and publicity

In conclusion, the regional development strategies’ qualities are comprehensive documents, elaborated by the staff of the Regional Development Agencies on the basis of economic and social analyses carried out, in consultation with the main local actors: local public administrations, trade unions, private entrepreneurs, NGOs, etc.

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CREDIT DES AGENTS ECONOMIQUES
CREDITAREA AGENTILOR ECONOMICI

GABRIELA FIAT*, OANA MATEUT **

Crediting economic agents represents a risk assumed by the bank, a situation in which the bank assures that these credits will be payed back taking some guarantees.

Key words: risk, credit, guarantee cash-deposit, ratio.

Les banques désirent garder leur niveau de profitabilité par la réduction des déficits et l’augmentation de l’efficience.

Les opérations effectuées par les banques doivent correspondre au principe de la prudence, ça veut dire le risque impliqué par chacune d’entre elles doit être minimal. C’est pourquoi on établit une série de règles de conduite bancaire imposées par la législation et qui prévoient : la conduite d’une gestion saine, les garanties offertes aux créanciers, les règles qui confèrent à la Banque centrale les moyens d’action nécessaires pour obliger les banques commerciales d’adopter une politique saine en concordance avec la politique monétaire et de crédit de l’état.

Le risque se réfère au contexte dans lequel un événement est déclenché avec une certaine probabilité, c’est pourquoi les banques ont en vue, principalement, deux catégories de règles.

La première catégorie de règles se réfère au calcul des certaines indicateurs par lesquels on apprécie l’efficience des opérations de la banque, qui sont : le coefficient de liquidité, ça veut dire la capacité de la banque de rembourser à tout moment, à l’aide de ses actifs, les engagements à terme court contractés, le coefficient de distribution des crédits à terme moyen et à long terme accordés, par rapport au volume de ses réserves, le coefficient d’utilisation des ressources établies, ça veut dire le rapport entre le volume

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des crédits à terme moyen et à long terme et les ressources stables plus les ressources obtenues par la banque sur le marché financier.

La deuxième catégorie de règles se réfère au taux de l’intérêt que les banques sont autorisées d’appliquer pour les crédits accordés et pour les dépôts reçus.

Les bénéficiaires des crédits doivent accomplir plusieurs conditions :
- dérouler des activités conformes à la loi,
- avoir des comptes ouverts à l’unité bancaire à laquelle il sollicite le crédit,
- présenter la documentation établie par la banque,
- exister la preuve de la capacité de remboursement du crédit,
- présenter des garanties réelles.

Les banques évitent d’accorder des crédits lorsque :
- les solliciteurs ont des dettes provenant de crédits antérieurs ;
- les solliciteurs ont émis des chèques sans provision ;
- elle constate que les dates présentées à la banque ne sont pas sincères.

Au cours du contrat conclu entre la banque et une personne physique ou juridique il peut apparaître une série de risques, pour le vendeur ainsi que pour l’acheteur et les causes qui peuvent générer ces risques sont nombreuses et peuvent être de nature commerciale ou non commerciale.

Les plus importants facteurs de risque sont :
- la structure inadéquate du capital ;
- le surdimensionnement du volume de l’affaire par rapport aux possibilités existantes, le profit réinvesti très petit, la projection d’investissements qui ne correspondent pas au pouvoir financier existant et celui réel.

Il est nécessaire l’existence d’une information permanente de la direction de la banque sur le résultat du procès d’analyse de la qualité des crédits, de manière que ceux avec des problèmes soient détectés et corrigés à temps.

L’analyse et la classification du portfolio de crédits se fait ayant en vue aussi l’évaluation des performances financières du crédité, ainsi que le service de sa dette, respectivement de sa capacité d’honorer les dettes à l’échéance.

Le rating de crédit représente un qualificatif exprimé numériquement, afférent à la qualité du portfolio d’emprunts de chaque unité bancaire territoriale, son but étant de différencier les niveaux de risque.
à niveau d’unité bancaire et même de client, au cadre du portfolio d’emprunts de la banque.

Le rating de crédit est une modalité d’établir la performance d’une société commerciale, en partant des indicateurs financiers ainsi que des indicateurs qui tiennent compte de la position de la société dans la branche dans laquelle elle déroule son activité et du management de la société.

En vue d’éviter certains risques à l’encaissement des crédits accordés, les banques s’assurent que les solliciteurs aient la possibilité de restitution des crédits dans les conditions du déroulement d’une activité normale, ainsi que pour leur récupération dans les situations dans lesquelles les crédits n’exécutent pas leurs obligations, comme il suit : en base des indicateurs économiques-financiers que les débiteurs s’obligent de présenter mensuellement ou trimestrielle, les garanties d’assurance, qui peuvent être offertes par les débiteurs ainsi que par des tiers, personnes physiques ou juridiques. La valeur minimale des garanties acceptées par la banque sera dans tous les cas à moins égale avec la dette la plus grande du débiteur.

Les garanties qui peuvent être acceptées par la banque se divisent en :

- garanties réelles (hypothèque, gage),
- garanties personnelles.

L’hypothèque est une garantie immobilière qui ne comporte par la déposition de celui qui la constitue. Pour accepter en garantie les biens immobiliers proposés ceux-ci doivent accomplir les conditions : d’être dans sa propriété et se trouver dans le circuit civil, de faire l’objet de la vente – achat, d’exister un marché sur pour les biens hypothéqués, les biens doivent être situés dans des zones d’intérêt pour une catégorie large de potentiels acheteurs, les biens hypothéqués doivent être assurés et les droits qui reviennent des dédommagements soient cédés à la banque.

Le gage est un contrat accessoire au contrat de crédits par lequel le débiteur ou le garant remet à la banque un bien mobile pour la garantie du crédit. L’objet du gage peut être constitué seulement des biens mobiles, soit-ils corporels ou non-corporels.

Le gage est : gage à dépossession, nommé aussi nantissement, qui suppose la dépossession du bien mobile du crédité et la déposition de celui-ci à la banque, gage dans dépossession.
Les garanties personnelles représentent l’engagement assumé par une personne physique ou juridique par lesquelles elle s’oblige d’exécuter l’obligation du débiteur au cas de la non-exécution de la part du crédité.

Les banques vérifient périodiquement l’existence, l’utilisation et le maintien dans des conditions adéquates des actifs qui constituent la garantie des crédits.

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Agro-tourism is seen as a regenerative factor of rural economies and, at the same time, as an element for preserving the rural environment. However, it is known that this rural environment is extremely frail, easily changeable, and tourism is a powerful agent of change, which by its influence might deteriorate precisely the special attraction of the rural areas. Let us keep in mind that the reasons of the tourists who choose these areas as their destinations, are related to the extremely good quality of the environment, the absence of pollution, the quiet atmosphere of calm and relaxation, which would disappear once with an irrational touristic development and which would situate the area on the wane.

**Key words:** durable development, durable touristic development, agrotourism, ecotourism

**ECOTOURISM AND A DURABLE DEVELOPMENT IN THE FIELD OF AGROTOURISM**

The notion of “ecotourism” appeared in the countries with a well developed touristic industry. Known under various names, such as: “green tourism”, “quiet tourism” or “ecological tourism”, ecotourism developed as a consequence of the consumers’ wishes to spend their holidays in a cleaner environment, unaltered by the modern interventions of contemporary society.

Ecotourism represents in fact the most valuable form of manifestation of durable tourism. Meanwhile, due to the increasing interest regarding the environment protection matters, ecotourism has been given a greater importance, determining a relationship such as the one in the image below: (Bran, 2000):

---

* Universitatea de Științe Agronomice și Medicină Veterinară București
** Academia de Studii Economice din București
A durable development should take into consideration, on the one hand, the way of arrival, and on the other hand, the interests of the hosts and of the visitors in a certain touristic area, the touristic resources and the way they affect the ecotouristic activity.

The relationship tourism-environment is indestructible and, consequently, the development of the ecotouristic field can assure a good management of these resources. The development of a touristic area is achieved at the same time with its ecological integrity.

Touristic resources have been classified according to various criteria: the value of usage (fundamental and auxiliary), the means of recovery (exhaustible and inexhaustible), by the degree in which they are known and used (identified, identified but unexploited, unidentified). But the most frequently used criterion divides the resources into: natural and cultural.

The most important natural resources:

- Mountain areas, with altitudes over 1200 m, are the most wanted during a year, regardless of the season;
- Hilly areas;
- Depressions and valleys from the mountain and hilly areas, which take the form of quays, defiles, very visited and appreciated by tourists;
- River meadows and deltas areas, based on the domination of aquatic
elements;
- Plain areas, which have generally a low touristic activity;
- Seacoast areas, which appear under various forms: large beaches, with a fine sand or high cliffs;
- Types of climate: there are several types of bioclimate which may or may not be favourable to the development of touristic activities;
- Hydrographic network with all its forms: rivers, lakes, seas, oceans, subterranean waters;
- Vegetation layers;
- Fauna, represented by the species that present a hunting or piscicultural interest;
- Protected areas, which can be: national and natural parks, reservations etc.

The new type of tourism presupposes the development of all the touristic activities in an unaltered environment.

Ecotourism has in view three main directions:
- Maintaining the quality of the environment
- Economic and technological restructuring on the basis of remodelling the resources’ management
- Practising some types of individual or group tourism which would take into consideration the pollution matters and their forms of manifestation.

STRATEGIES OF A DURABLE AGRO-TOURISTIC DEVELOPMENT

a) Strategies for a durable agro-touristic development – an element for protecting and preserving the environment

Within the idea of a durable development, tourism is seen as a relational triangle made up of three sides:
- host area;
- “holiday makers” tourists
- touristic industry.
The purpose of a durable touristic development is to reconcile the relations between the three sides of the triangle, decreasing the tensions between these three elements and thus maintaining a long term balance.

“The notion of durable tourism represents the way of obtaining a balance between the growth potential given by tourism and the needs of preserving the environment”, claimed the Swiss professor Jost Krippendorf (1988). Durable tourism sets forth to decrease the damage brought upon the environment and the cultures of the regions with a touristic development potential, optimizing thus the satisfaction of the visitors and increasing the long term economic growth. Also, if we can lose and afterwards rebuild the capital in other economic fields, it doesn’t happen the same in tourism, where once we’ve lost the main elements (the landscape and the land), they are irrevocably lost. In the long run, the financial costs for maintaining a durable tourism may appear as being high, but subsequent costs for ecological rehabilitation are higher, and very often the negative effects upon nature are irreversible.

Agro-tourism has developed both due to the market which is continuously searching for more diversified ways of spending holidays, as well as to the governmental initiatives. In several European countries, where agro-tourism is very developed, powerful touristic agencies have promoted this new use of rural spaces and, also, providing them facilities and clients for the new offer created.
Agro-tourism is seen as a regenerative factor of rural economies and at the same time as an element for preserving the rural environment. However it is known that this rural environment is very frail, easily changeable, and tourism is a powerful agent of change, which by its influence might deteriorate precisely the special attraction of rural areas. Let us remember that the motivations of the tourists that choose these areas as destinations are connected with the very good quality of the environment, the absence of pollution, the quiet atmosphere of calm and relaxation, which would disappear once with an irrational touristic development and which would situate this area, according to Buttler’s model of touristic development, on the wane.

This is exactly the reason why businessmen should give more attention to the type of development they take up. Many times, out of a desire to earn more in a short time, we notice an overbooking of the rural areas.

The concept of durable development in rural tourism should have various purposes in order to have the success one counts on. Durability in tourism doesn’t represent only a story about preserving nature, but also a scientific outlook which aims at the tourism of the future.

Among the requirements regarding the tranformation of agro-tourism in a durable tourism we can mention:

- Protecting the culture and character of host communities;
- Protecting the landscapes and the habitat;
- Supporting rural economies;
- Supporting a viable touristic industry in the long run by promoting a positive touristic experience;
- Developing a partnership between the factors involved in tourism, local authorities and the host population;
- Counterbalancing a powerful touristic development by a diversified rural economy.

In a free market economy, it is extremely difficult to observe these requirements, due to the fact that several parts are involved, who have different desires and interests. The solution to this problem is the partnership created between all the parts involved in tourism, materialized in a durable touristic development strategy.

From an economic point of view, the degradation of the touristic potential is reflected first of all in the impossibility to turn it into good
account as a touristic income source, constituting thus an irreversible loss for economy. At the same time, touristic products, which include deteriorated resources, decrease their value, having direct consequences upon touristic demand, which will diminish. From a socio-cultural aspect, altering the environment leads to the alteration of the most important functions of modern tourism, that is the resting-recovering function and the instructive-educative. The alteration of the environment reduces the possibilities of health recovery, by reducing the therapeutical factors or those that favour rest and relaxation. The quality of the environment can be considered a real indicator of the touristic potential. At the same time, by the “requirements” it assumes, tourism can represent a solution for maintaining the environment unaltered. (Bran, 1997), (McIntosh, 1995).

Almost all successful businesses rely on a plan and a clear strategy. Through a well defined strategy one tries to satisfy demand, to avoid wasting investments and effort, as well as identifying some market gaps.

Durable strategies in tourism have all these attributes, as well as some other very important ones:

✓ Encouraging the dialogue between the partners involved, creating a multidisciplinary team (government, businessmen, local communities, other parties interested in the future of the region and the role of tourism);
✓ Guiding and encouraging investors, contributing to the improvement of local infrastructure in the domain of transportation, communication, with many advantages for the inhabitants of the area;
✓ Assuring the long term security of touristic investments;
✓ Comprising the idea of preserving the nature and the cultural patrimony typical of the region in the touristic development strategy;
✓ Protecting, through the strategy chosen, the vestiges, monuments, reservations of the respective area;
✓ Ecological education of the tourists;
✓ Encouraging those newly entered in tourism;
✓ Clearly establishing the protection purposes for each natural area with the participation of specialists and of all those who are interested in these areas touristic capitalization;
✓ Writing down all the natural and cultural characteristics which may represent the basis for the touristic potential and the analysis of all
In order for such a longlasting strategy to have the succes we hope for, we should take into consideration several aspects. Firstly, the persons who work at the strategy should make up a team and be prepared not only in the touristic, but also in the ecological, social and cultural fields. It is also necessary to discuss with all the groups which are interested: businessmen, the host population, local authorities, culture authorities, specialists in environment protection etc. Only through a total transparence will the settled goals be achieved. Let us remember that the success of tourism in a certain area depends to a great extent on the way tourists are attended to by local communities. We will never be able to satisfy touristic demand in a hostile environment. In this respect an important part is played by mass-media, which should initiate a real two-way dialogue, local community - factors involved in tourism.

We think that, although the efforts for elaborating a durable strategy in tourism are difficult, multiple and have to face various problems, it is still worth trying to find a way to satisfy both people’s needs as well as protecting the environment and, consequently, the rural areas, which are so frail. Only a rigorous assessment, which takes into consideration both demand and supply, competition, market trends, will allow one to decide whether a region really possesses touristic potential which would justify the investments in that field and drawing up projects for touristic development.

Assessing local touristic potential as a premise and condition of durable development presupposes two initial phases:

- The analysis of the present touristic situation, in which we assess: offer, demand, competence and market trends;
- The diagnosis, which, taking into account the results of the analysis of the situation, will allow one to identify the strong and weak points
of the territory, to determine the opportunities and the risks, so that in the end to decide the possible development of agro-tourism in the area.

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THE DISTRIBUTION POLICY OF POULTRY

POLITICA DE DISTRIBUȚIE A PRODUSELOR AVICOLE

ELENA SOARE*

In countries economically developed distribution represents a productive sector, which creates added value. In the EU there are involved approximately 15% from the total employment.
Modern distribution developed to the detriment of traditional commerce, with led to a concentration of this sector in all countries.
As for the participation to the distribution process, their structure is heterogenic.
Due to the increase of consumers’s asking for poultry products, finding of new distribution formalas and new methodes and commercial technologies is essential.

Key word: marketing mix, distribution, channels of distribution, supply, wholesale trade.

In all the countries where the agro-alimentary systems function ground on economy market principles, product channel begins from agricultural producer’s “gate” and ends to the consumer, when the processed product arrives.
Along this channel agricultural products are transported, transformed, conditioned, retransported, retained and presented to the consumers.
Distribution includes all the economic and technical- organization activities regarding the product’s channel from producer to the consumer on maximum efficiency terms.
Distribution interposes between the production and consumption sphere.
Agricultural and agro-alimentary products distribution involves elaboration of the policies and strategies bound on election of the distribution channel.

* University of Agricultural Sciences and Veterinary Medicine, Bucharest
The distribution process of the agro-alimentary products is complex and different from the industrial products distribution. All the activities belonging to distribution sphere for agricultural and agro-alimentary products are facing with many difficulties. These difficulties are tied on production characteristics and the demand for agricultural and alimentary products.

Thus:
- agricultural production has generally alimentary character, localized irregular in space and time and much dispersed;
- the products are in majority seasonal and perishable;
- the demand for food products is very little elastic or even inelastic.

Connecting the production with the consumption in space and time, distribution had generally the following parts:
- regulate wave of agro-alimentary goods from producer to consumer, with the view to attenuate in some cases the negative affects of market random phenomenal.
- offer information for producers regarding customer’s needs and wishes, the purpose being adaptation of offer to their dynamics.
- offer to customers logistic services complex and diversified.

Within the framework of agro-alimentary products channels, from one operation to another, as a result of the transactions and market exchanges, requires the transfer of property deeds and also a series of other channels, allowing their passage from production to consumption stage.

Distribution is a variable of the marketing mix and delimits in two big domains the marketing channel:
- marketing channels work and explanation, distribution forms and economic circulation of the goods.
- physical goods distribution.

Distribution channel includes entirely the commercial distribution links, which are directed and displayed tides of goods from producer to consumer.

A distribution channel involves all the firms who participate through active sell and buy, to the transfer of one product from producer to its destination, in a certain space and time, passing through organizational appearances of the wholesale trade and retail trade depending on case.
In the distribution process many tides are taking place:

- informational tide;
- product tide;
- currency tide;

Distribution channel types will depend on internal or external market where distribution is achieved.

Distribution channels on internal market are:

- Producer - Consumer.
- Producer – Intermediary – Consumer.
- Producer - Wholesaler - Retail dealer – Consumer.

In the poultry integrated units the poultry products distribution can be achieved:

- using a direct channel;
- suppliers, means;
- integrated fodders factory;
- integrated breeding meat chicken and egg hen for consumption;
- integrated slaughter house;
- personal stores;
- consumers;

Between integrated unities, the distribution of poultries can be done using a direct link or using a vertical distribution link.

The policy of links offer a company the chance to create the most reasonable relationships with the economic agents at market level internally and externally with a view to links between activities afferent technical and economical functions of companies, in hoping of choosing the best strategy.

The lining up of the poultry producer to the link policy can be done if he adopts those strategies that helps him to:

- conclude partnerships between different producers to make some large distributions;
- delivery in time of fresh poultries to shops and delivery centers;
- supply of stocks to supermarkets and hypermarkets;
- assimilate the best policy in launching and circulation of poultries to the market.

A few characteristic features must be known for the fowl meat marketing:

- for those that are producing and marketing fowl meat it's important to know in detail the market;
the medium prices of the market are pulled down by the imported fowl meat, which is inferior to local meat, especially when our meat is distributed fresh in our markets;

there are some districts in the country where the fowl meat is marketed only frozen because in these regions is predominant the imported meat;

The link from the poultry industry identifies through:

- the selection of biological material;
- possibility of obtaining the hybrids.

The one day old chicks are transported to breeding farms. The link finishes with the marketing of poultries internally and externally under different forms of presentation: one day chicken, broiler chicken, packed organs, prepared products, fresh eggs, etc.

The decision concerning of how to choose the marketing of the poultry products depends on quantity value of the productivity factors. This decision is influenced by other factors such as:

- characteristics of product;
- characteristics concerning consumers;
- characteristic concerning the competition.

The strategy of distribution adopted by the poultry industry must be flexible and open to the new market changes. After the application of a strategy, the company have to remain open to the new strategies that could permit savings or a real growth of its importance on the market.

BIBLIOGRAPHY

THE AGRICULTURE INSURANCE SYSTEM IN ROMANIA

SISTEMUL ASIGURĂRILOR AGRICOLE ÎN ROMÂNIA

ANA DEMSOREAN*

The study briefly presents the agriculture insurance system in Romania, especially the insurance for natural disasters, and some problems that may occur, in practice, in the system.

Key words: insurance, standard insurance conditions, insurance for natural disaster

The farmers must face, in their activity, two fundamental types of risk: the production risk and the price risk. The first refers to the fact that the production might not be obtained, completely or partially, mainly due to weather factors. The second, that does not make the object of the present study, refers to the possibilities of commercializing the product, and its amplitude depends mainly on the elasticity of the market offer and request for the product, on the market conditions and on the international conjuncture.

The main modality of production towards the production risk is the insurance. Concerning the Romanian agriculture insurance system, the distinction between standard insurance and the disaster one is very important. Until 2002, only the first possibility could be used by the farmers in order to protect themselves towards the production risks.

The insurance companies did not have, not even though the reinsurance, enough financial power to take the chance of covering the risks concerning disasters, that would have destroyed the cultures or killed the animals on large surfaces on land.

After the Law no. 381/2002 become applicable, there was also the possibility to protect oneself against natural disasters. The law was created after a French model. This system allows the producer to recuperate the expenses that he made with the purpose of obtaining the production, though payments from the state budget.

* Economic Sciences Academy, Bucuresti
THE CONDITIONS THAT THE PRODUCER MUST FULFILL IN ORDER TO BENEFIT FROM THE PROVISIONS OF THE LAW NO.381/2002

If a natural disaster occurs, a sine qua non condition in order to obtain an indemnisation form the state is the existence of an Government Decision, which should declare the area in cause as affected by such a natural phenomenon. The Ministry of Agriculture, taking into consideration the information it receives form the Meteorology Institute, notifies the Government. The latter than decides if the farmers in that area will benefit from the provisions of the Law no. 381/2002, by issuing or not a Government Decision.

Another condition, as important as the latter, is the conclusion of an insurance contract with one of the insurance societies denominated by Ordinance issued by the Minister of Agriculture.

Due to the fact that many producers do not have a proper training, or due to their lack of trust in this risk covering system, they do not conclude standard insurance contracts, therefore being unable to benefit from the provisions of the Law no. 381/2002.

The farmers must also fulfill other obligations, in order for the Law 381 to become applicable:
- they must declare and register the cultures and the animals, or the landing contracts in the Agricultural Registers, which exist in every village or city.
- they must take care of the cultures or animals, according to the technologies issued by the Agricultural Institute
- they must take the necessary measures in order to prevent the attack from the diseases or the insects
- they must evaluate the damages with good faith

If the producer fulfils all theses duties, and the Government issues an Ordinance regarding that particular land area, the farmer will be able to send a notice concerning the occurrence of the disaster, within 48 ours for the cultures and plantations, and within 24 hours, for the animals, birds and fishes.
PROBLEMS REGARDING THE PAYMENT SYSTEM

There will be payments only for the cultures and plantations that have registered over 30% losses, and the maximum level of damage covering is 70%. These percents concern the amount of money the farmer has spent until the moment that the disaster was produced.

The intention of the law maker was that, by putting obliging the farmer to pay a part of the damages, to stimulate him to show more care before the disaster occurs, as well as after, in limiting its consequences.

Another problem resides in the fact that the farmer must show proof of these expenses. Due to the feeble training of most of the Romanian farmer, who are mostly old, they often do not see the utility of keeping the receipts, once they do expenses concerning their production activity.

The maximum payments per hectare are established by the same Government Decision that declares the area as an area affected by natural disaster. This amount is calculated and paid according to the technologies elaborated by the Institute for Agriculture, and approved by the Minister of Agriculture.

Some producers (discussion with “International Group” Ltd) complain that the technologies issued by the Institute are very old and non-efficient, and that they must choose between using more efficient solutions, but not having the possibility to benefit from the payments provided according to the Law no. 381, and the situation when they use the specified technologies, having less efficiency in their activity, but being able to benefit of the provisions of the Law no.381.

The payments will be granted at different moments in time, according to the magnitude of the destructive effects over the cultures and the plantations: in the case of total destructions, the amounts of money will be granted immediately, only if there is the possibility to re-cultivate the land; in the case of partial destruction, the payments will be granted at the end of the production cycle.

In the case of animals, birds and fishes, the situation is similar, regardless of the magnitude of the destructive effects.

In practice, the situations have often proved different from those stipulated in the laws. Another discontent of the farmers is generated by the delays in the actual deliverance of the money; the estate executes its obligations with great delays.
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We would like to present within Section number seven, some provisions about Romanian agriculture, and the measures we are taking in the future in conformity with negotiations and with PAC implications for arable crops, sugar, wine, pork, mutton, and goat, milk and milk products etc. Some aspects are very important in the “Agriculture Brief”: the subsidies on the domestic market; the amounts to be exported to the E.U. market and to the international market; and the incentives and protection measures for the internal producers etc.

**Key words:** negotiation, integration, agricultural market, crop and animal production, provision.

All during 2004, Romania has completed negotiations under Chapter 7 (“Agriculture”) concerning the adhesion to the E.U.

In order to assess the advantages and disadvantages of these negotiations, we should start from the following: the present state of Romanian agriculture; the functioning of agricultural market at present and during the pre-adhesion period (until 2007); the requirements of Romanian agriculture within agricultural market mechanisms of the E.U.

1. **The present state of Romanian agriculture**

Among the 12 candidate States to the E.U. until 2000, 10 are already Member States, while 2 (Romania and Bulgaria) are to adhere by 2007.

Romania is among the States with a most unfavourable situation in agriculture, which has played an important role in the final output of negotiations. Thus:

- Romania has a high share of population employed in agriculture.
Table 1. **Share of the population employed in agriculture (thousands of people) 1990-2002**

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<tbody>
<tr>
<td>Total of which:</td>
<td>10,839</td>
<td>9,493</td>
<td>8,629</td>
<td>9,234</td>
<td>-1,605</td>
</tr>
<tr>
<td>Agriculture</td>
<td>3,056</td>
<td>3,187</td>
<td>3,523</td>
<td>3,362</td>
<td>+0,306</td>
</tr>
<tr>
<td>%</td>
<td>28.2</td>
<td>33.6</td>
<td>40.8</td>
<td>36.4</td>
<td>+7.6</td>
</tr>
</tbody>
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Agriculture has become in Romania a “support” for the population affected by the transition: it has absorbed part of the population licensed from the urban areas, a population that had to practice subsistence agriculture.

- An unfavourable ratio between the population employed in agriculture and its share of the gross domestic product.
- A too high number of people employed in agriculture per 100 ha of cultivated land

Table 2. **Number of people per ha of cultivated land**

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<tbody>
<tr>
<td>Number of people per ha of cultivated land</td>
<td>people</td>
<td>32.5</td>
<td>34.5</td>
<td>41.4</td>
<td>35.9</td>
<td>3,4</td>
</tr>
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- A low level of labour productivity per person employed in agriculture

Table 3. **Labour productivity (U.S.D.)**

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<tbody>
<tr>
<td>Labour productivity per person employed in agriculture</td>
<td>usd</td>
<td>3,883</td>
<td>3,637</td>
<td>2,149</td>
<td>2,014</td>
<td>1,869</td>
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- A low level of technical endowment
Table 4. Tractors and agricultural equipment

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<tbody>
<tr>
<td>Agricultural tractors</td>
<td>127,065</td>
<td>163,370</td>
<td>160,053</td>
<td>169,240</td>
<td>+42,175</td>
</tr>
<tr>
<td>Tractor ploughs</td>
<td>73,159</td>
<td>107,253</td>
<td>123,192</td>
<td>131,252</td>
<td>+58,093</td>
</tr>
<tr>
<td>Mechanical cultivators</td>
<td>27,339</td>
<td>23,376</td>
<td>26,212</td>
<td>27,433</td>
<td>+0,094</td>
</tr>
<tr>
<td>Mechanical sowing</td>
<td>35,778</td>
<td>50,395</td>
<td>57,127</td>
<td>62,061</td>
<td>+26,283</td>
</tr>
<tr>
<td>machines</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cereal harvesters</td>
<td>35,813</td>
<td>36,125</td>
<td>26,783</td>
<td>24,231</td>
<td>-11,582</td>
</tr>
<tr>
<td>Maize harvester</td>
<td>4,882</td>
<td>1,996</td>
<td>1,301</td>
<td>1,084</td>
<td>-3,798</td>
</tr>
<tr>
<td>Straw and hay balers</td>
<td>21,706</td>
<td>16,346</td>
<td>6,753</td>
<td>4,921</td>
<td>-16,785</td>
</tr>
</tbody>
</table>


- An unfavourable ratio between crop production and animal production

Table 5. Structure of agricultural production

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<tbody>
<tr>
<td>Crop production %</td>
<td></td>
<td>53.0</td>
<td>61.1</td>
<td>54.4</td>
<td>+1.4</td>
</tr>
<tr>
<td>Animal production %</td>
<td></td>
<td>47.0</td>
<td>38.9</td>
<td>43.9</td>
<td>-3.1</td>
</tr>
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*1.7% agricultural services

- Low yields per ha and per foraged animal

Table 6. Yields per ha and per foraged animal

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<tbody>
<tr>
<td>Wheat and rye kg</td>
<td></td>
<td>3,212</td>
<td>2,280</td>
<td>1,923</td>
<td>-1,289</td>
</tr>
<tr>
<td>Barley and two-row barley kg</td>
<td></td>
<td>3,577</td>
<td>2,105</td>
<td>2,004</td>
<td>-1,573</td>
</tr>
<tr>
<td>Grain maize kg</td>
<td></td>
<td>2,756</td>
<td>1,603</td>
<td>2,902</td>
<td>+0,146</td>
</tr>
<tr>
<td>Sunflower kg</td>
<td></td>
<td>1,409</td>
<td>821</td>
<td>1,107</td>
<td>-0,302</td>
</tr>
<tr>
<td>Sugar beets kg</td>
<td></td>
<td>20,149</td>
<td>13,787</td>
<td>22,947</td>
<td>+2,798</td>
</tr>
<tr>
<td>Cow and buffalo milk l</td>
<td></td>
<td>2,063</td>
<td>2,867</td>
<td>3,135</td>
<td>+1,072</td>
</tr>
<tr>
<td>Eggs Thousands of pieces</td>
<td></td>
<td>163</td>
<td>145</td>
<td>144</td>
<td>-19</td>
</tr>
</tbody>
</table>

*calculated upon the ground of capita number in 2003
A low share of healthy food

An unfavourable ratio between import and export of agro-alimentary produce

Inefficient size of agricultural exploitations

The agricultural census in 2002 shows substantial changes from the point of view of ranging cultivated lands in the two exploitation categories: large and small. In 2002, there were in Romania:

- 4,759,700 exploitations, of which:
  - 4,736,600 (99.5%) were individual farms;
  - 23,100 (0.5%) were commercial exploitations with juridical status.

Likewise, of the total agricultural area used in 2001-2002 (13,939,500 ha), 44.6% was worked on farms with juridical status and 55.4% on individual farms (households and family associations).

2. The functioning of agricultural markets

At present:

- There are no complete mechanisms that ensure the functioning of the agricultural market (agricultural producers do not participate in establishing prices for their produce, wholesale markets are not enough developed, and there is great need for goods exchange in all geographical areas with tradition in agriculture, etc.).

- Exploitations of the commercial type have a low share of the total agricultural exploitations. Thus:
  - only 15%-16% sell more than 1/3 of their production on the market;
  - only 5% sell more than 50% of their production on the market.

- There is no cooperation in agriculture

- The lack of public or private mechanisms that acquire the produce stocks right after harvesting (cereals, vegetables, milk) for a guaranteed price, which would allow them to ensure the necessary income to prepare future production.

- The low level of subsidies per produce compared to the present state of Romanian agriculture and with real needs of small and medium producers.

3. Main provisions of negotiations that allow the meeting of E.U. requirements
Agriculture has been one of the most delicate negotiation issues because of its major role in the Community budget. Despite the fact that the implications of the expansion in the field of agriculture on the E.U. aggregate economy are not to be very serious, because of its low share of the gross domestic product Romanian agriculture is still a controversial domain. Differences have appeared in relation to the use of Community agricultural policies.

In the process of negotiation, Romania has succeeded in the following:

a) The crop production sector

<table>
<thead>
<tr>
<th>Arable crops</th>
<th>Area 1990 (ha)</th>
<th>Area 2002 (ha)</th>
<th>Distribution per reference area (ha)</th>
<th>Reference production in 2007 (t)</th>
<th>Estimated necessary domestic consumption 2007</th>
<th>Deficit / theoretical surplus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wheat + rye</td>
<td>2,297,700</td>
<td>2,309,800</td>
<td>2,272,809</td>
<td>6,022,944</td>
<td>4,290,000</td>
<td>1,732,944</td>
</tr>
<tr>
<td>Barley + two-row barley</td>
<td>749,000</td>
<td>578,800</td>
<td>569,531</td>
<td>1,765,545</td>
<td>1,450,000</td>
<td>315,545</td>
</tr>
<tr>
<td>Maize</td>
<td>2,466,700</td>
<td>2,894,500</td>
<td>2,842,145</td>
<td>9,968,508</td>
<td>8,385,000</td>
<td>1,587,641</td>
</tr>
<tr>
<td>Sunflower</td>
<td>394,700</td>
<td>906,200</td>
<td>891,687</td>
<td>1,159,194</td>
<td>825,000</td>
<td>334,194</td>
</tr>
<tr>
<td>Soy bean</td>
<td>190,200</td>
<td>71,800</td>
<td>70,650</td>
<td>141,300</td>
<td>350,000</td>
<td>208,700</td>
</tr>
</tbody>
</table>

As for vegetables and fruit, the situation is as follows:

<table>
<thead>
<tr>
<th>Specification</th>
<th>Area 2000</th>
<th>Area 2002</th>
<th>Estimated area 2007</th>
<th>Estimated production (t)</th>
<th>Necessary consumption (t)</th>
<th>Estimated deficit / surplus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tobacco</td>
<td>16,800</td>
<td>16,000</td>
<td>9,100</td>
<td>16,000</td>
<td>35,000</td>
<td>-19,000</td>
</tr>
<tr>
<td>Vegetables</td>
<td>216,000</td>
<td>236,300</td>
<td>206,400</td>
<td>3,694,560</td>
<td>3,768,000</td>
<td>-73,440</td>
</tr>
<tr>
<td>Fruit</td>
<td>-</td>
<td>-</td>
<td>185,000</td>
<td>1,480,000</td>
<td>1,532,000</td>
<td>-52,000</td>
</tr>
<tr>
<td>Potato</td>
<td>289,600</td>
<td>283,200</td>
<td>247,000</td>
<td>3,309,800</td>
<td>3,191,000</td>
<td>118,800</td>
</tr>
</tbody>
</table>

In tobacco, there is coverage for the domestic production and the difference is covered with imports.

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In vegetables and fruit, deficit is to be covered with imports (particularly during winter).

Direct support for the vegetal production sector shall be:
- in 2003: 216,000 €;
- in 2004: 297,000 €;
- in 2007: 648,000 €, of which:
  • 295,000 € budget U.E. 2007
  • 353,000 € budget Ro 2007

As for sugar beets, the situation is as follows:

**Table 9. Sugar quotas**

<table>
<thead>
<tr>
<th>Specification</th>
<th>Quotas (t)</th>
<th>Domestic consumption</th>
<th>Deficit</th>
<th>Processing quota</th>
<th>Necessary after processing quota</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sugar</td>
<td>109,164</td>
<td>500,000</td>
<td>390,836</td>
<td>329,636</td>
<td>61,200</td>
</tr>
<tr>
<td>Isoglucose</td>
<td>9,981</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Romania’s production and processing capacity in sugar beets and raw sugar is higher than quotas settled by the Commission.

**Table 10. Sugar beets**

<table>
<thead>
<tr>
<th>Sugar beets production necessary for producing sugar (t)</th>
<th>Sugar beets yield for sugar (t)</th>
<th>Areas necessary for sugar beets (ha)</th>
<th>Area cultivated with sugar beets 2002</th>
<th>Maize production necessary for the production of isoglucose</th>
<th>Areas necessary for the production of isoglucose maize</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,167,529</td>
<td>954,600</td>
<td>50,762</td>
<td>41,800</td>
<td>19,962</td>
<td>5,703</td>
</tr>
</tbody>
</table>

Note: 10.69 t of sugar beets per 1 t sugar; 2 t maize = 1 t isoglucose

Negotiations concerning the vine sector resulted in the following:

**Table 11. The vine sector**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Fruiting vineyards</td>
<td>Areas (ha) / yields (thousands of t)</td>
<td>Areas (ha) / yields (thousands of t)</td>
<td>Areas (ha) / yields (thousands of t)</td>
</tr>
<tr>
<td></td>
<td>247.5/1,295.3</td>
<td>223.1/1,071.2</td>
<td>231/1,155.0</td>
</tr>
</tbody>
</table>

The situation of the vine plantations was, at mid 2004, as follows:
- Vine cultivated area: 188,629.82 ha;
- Number of vine plots recorded: 1,242,258
- Vine area recorded: 176,291.97 ha (93.5%).
The situation in animal husbandry is as follows:

Table 12. Animal husbandry

<table>
<thead>
<tr>
<th>Specification</th>
<th>Quota (t)</th>
<th>Necessary amounts (heads)</th>
<th>Current amounts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cow milk</td>
<td>3,057,000</td>
<td>826,216</td>
<td>1,741,551</td>
</tr>
<tr>
<td>Cattle</td>
<td>-</td>
<td>1,383,000</td>
<td>2,897,100</td>
</tr>
<tr>
<td>Sheep</td>
<td>-</td>
<td>5,880,000</td>
<td>7,446,861</td>
</tr>
</tbody>
</table>

- the necessary number of dairy cows to cover milk quota after negotiations is covered by existing numbers;
- the exceeding cow milk (915,335 t) shall cover personal and animal consumption;
- in sheep, we can say that the present number almost equals the quota;
- for the other animal species, there are no quotas.

Direct payments for animal husbandry are as follows:

- Programme 2004: 71,232,000 €;
- Programme 2007: 242,000,000 €, of which:
  - 110,000,000 € budget U.E.;
  - 132,000,000 € budget Ro.

There is a close link between animal husbandry and processing. Within negotiations, we have been granted a 3-year transition period (until December 31, 2009) during which we have to solve the following aspects:

- The main objective in processing milk is maintaining and modernising this sector so that after 2009 we can cover fully the processing quota.
- Modernising and re-technologising processing units, organising milk collecting and standardising centres.
- Updating dairy cattle farms.
- Modernising slaughtering units and updating meat processing centres (at present, very few meat processing units in the country meet the E.U. requirements).

As a conclusion, we can say that:
- in 2007, the total support for agriculture shall be of 1,860,000 € destined to market measures, direct payments to the vegetal crop...
and animal production sectors, to rural development (particularly by measures contained by the SAPARD Programme);
- milk quota for 2007 is 3,057,000 t;
- sugar quota is 109,164 t, and processing quota is 329,636 t, quotas close to those required by the E.U. average;
- establishing vine register and an 8-year transition period for replanting 30,000 ha with noble vine;
- a 3-year transition period for meat and milk processing units, updating crude milk to E.U. standards, updating phyto-sanitary measures according to E.U. standards.

All this shall help us:
➢ Have access to a 450,000,000 consumer market;
➢ Enhance inter-community trade;
➢ Supplement farmers’ incomes;
➢ Increase foreign investments in agriculture, etc.

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At this very moment, the insurances cover a relatively limited area of risks in Agriculture. Therefore, there should be taken into consideration the fact that we cannot have a completely efficient and safe agriculture without the necessary insurances in this field. The reality is that only a few agricultural producers can rely on insurances with a view to their everyday life. From the perspective of integration of Romania to EU, the main issues in this field, at this moment and in the future, are reported upon the required legislative regulations and on the compliance to the European requirements of the main performers on the insurance market. The insurance in agriculture becomes thus a compulsory necessity after Romania becoming a member of The European Community, and nevertheless, the insurance quota gave birth to a series of controversies.

Key words: insurances, bonuses, penetration degree

At this very moment, the insurances cover a relatively limited area of risks in Agriculture. Regarding the more serious risks like the prolonged drought, the state spends a large amount of money, instead of the insurance companies. Both the authorities and the insurers agree that a joint fund for compensation against the calamities should be set up, but each of these parties expect that the other one should pay more. From several sources from the Ministry of Agriculture, a half of the amount that is to set up this fund, will be offered from the state budget, a part will be provided by the insurers and another part will come from taxes.

The insurance in agriculture becomes thus a compulsory necessity after Romania becoming a member of The European Community, and nevertheless, the insurance quota gave birth to a series of controversies; a
state official of the Ministry of Agriculture stated that “the insurance companies want to pay symbolic amounts for compensating the people against the calamities”. Still, the payment against the calamity risks means bankruptcy for several of the insurance companies. A conclusive example is that of the draught from 2003 when the state has paid compensations that rose to 1500 billion lei while the entire market of the agricultural insurances has been amounted to 400 billion lei. However, the agricultural insurances present a high potential that has been appreciated to easily reach 2000 billion lei, and if the state grants financial aid for the insurance bonuses, this potential will reach 4000 billion lei only for the agricultural cultures. If we add the equivalent of this amount for the insurance of the animals and of the agricultural technology, we will be talking about 8000 billion lei, a tempting amount for the insurance companies.

In order to benefit of the financial aids from the European Community, the farmers will have to insure their animals and agricultural cultures. The integration to the European Community will eventually solve the problem of the insurances in agriculture in a different manner from how it is now seen by the actual participants of the insurance market. The insurers will have to take into consideration the fact that after the integration to the European Community, the foreign insurance companies which are more stronger from the financial point of view, will be given the opportunity to sell insurance policies in Romania. Therefore, one should consider the fact that the native insurers will come upon serious issues unless they give a serious consideration upon the agricultural insurance prior to integration of Romania to the EU. The farmers will have no other choice but to start paying for the insurance in order to receive subventions from Bruxelles, and the insurance companies will come across a strong foreigner competition. Therefore, our conclusion is that the agricultural insurances will become a profitable business in less than two years.

Because of this enormous potential of the Romanian agricultural insurance markets, the farmers’ representatives have requested to the Romanian state some financial aids in order to settle a joint guarantee fund for agriculture. In other words, The Associates League of The Agricultural Producers from Romania (LAPAR) wants to control this money of the agricultural insurance markets. Similar models can be seen in the Occidental states, too, but these have been built along the years by means of
subventions from the rich states and on the conditions that the farmers have jointed powerful associations. This is not the case of our actual agriculture.

An enterpriser has fewer chances nowadays to obtain a credit if he works as a farmer and not as city – trader. The uncertainty of the agricultural business frightens both the bankers and the insurers. In order to balance the chances of the farmers who are looking for bank loans, the authorities make use of a series of stimulents such as: the subvention of the insurance bonuses, of several expenses and also the necessary documentation up to the moment when the new European legislation will be delivered.

In order to facilitate and promote the credit conditions and the insurances in the agricultural field, the Romanian state decided to subsidize both a part of the credit intended for the farmers and a percentage of the insurance bonuses. The officials from the Ministry of Agriculture think that the main obstacles that keep the distance between the banking money and the farmers are the credit procedures which are inappropriate for the particularities of this activity. For example, the inappropriateness of a credit extended over a period less than 6 months concerning the agricultural cultures.

With a view to the general agricultural insurances, one can see that the turnover of the insurance companies has considerably been increased in the last years. It can also be found that the gross bonuses cashed by the Romanian insurance companies knew a progressive increase in the last 5 years, from 337.69 million Euro in 2000, to approx. 1000 million Euro, as it has been estimated for 2005 (1st Chart).

Source: CNSA, 2005
Chart 1. Gross bonuses cashed by the insurance companies between 1997 – 2004 and the estimation for 2005
Regarding the penetration degree of the insurances in Romania, it can be seen that during 2001, this degree has been of 0,87% from PIB, gradually increasing and in 2003, reaching the threshold of 1,28%, and in 2004, it has been estimated to reach 1,9%. This penetration degree is relatively less in comparison with those of the neighbouring countries that are new members of The European Community, where the volume of the insurance bonuses represents 5-6% from PIB (Chart 2).

Important news is expected for the immediate period, in relation with the law of insurances in Romania. Several provisions of this law contradict those stipulated by the basic law that regulates the insurance activities and which are already in force. An ordinary law cannot modify an organic law, as the insurance law can be called.

Nowadays, only 15 insurance companies from Romania have a joint capital that rises to more than 2 million Euro, the others amounting a relatively modest capital in comparison with that hold by the insurance companies from The European Community. For example, starting with 2005, in Bulgaria, the compulsory minimum joint capital figure related to an insurance company is of 6 million. The increase of the capital is necessary because an insurance company that has no financing capacity, has a reduced assumption of the risk potential.

At the same time, by the competences that have been awarded by the Law of reorganizing of the bankruptcy of the insurance companies, The
Insured Safety Fund will become a larger and more stable and independent structure, with distinct and self–managed budget. Moreover, a distinct administration of the life and non–life insurance companies will be kept, under the conditions in which the contributions to The Insured Safety Fund will be different.

Given the capital requirements, for the immediate period there are expected some market groups, fusions or acquisitions of small or medium insurance companies.

Regulation implementations are required too. The Insurance National Supervision Commission should deliver a new rule regarding the authority of the insurance companies that should clarify the criterion of properness of the significant persons and of their shareholders.

There should also be issued a rule concerning the Register of the insurance agents where only the certified persons and the persons who are holding a minimum capital set forth by CNSA should be registered.

For the future, The Insurance National Supervision Commission should express its position more firmly, should take more clarifying decisions, and when it founds out that there are some companies that don’t observe the legal provisions, should take more severe measures. If not acting like this, we will actually postpone the possible major issues and this happens when a insurance company which enters the bankruptcy the Insured Safety Fund will be called for, and depending on the company, this is enough or not, and the rest of the insurance companies will have to contribute to set up again this fund.

CONCLUSIONS

In 2004, the insurance bonuses have increased, amounting in Romania almost 800 million Euro, and the insurance products have been variate. One of the major issues which the insurance companies still come across is the attitude towards the customer. The customer should be highly respected.

The insurance agreement has to be observed too, and if the customer has been injured, for example, the payment should be made on time and should not be postponed.
A large variety of the insurance products is necessary for the market sector that has not been already exploited enough and namely, the agricultural insurances.

It is also required the fact that the insurance agents should not work on a contractual base and also they should be obliged to obtain the legal certifications for this activity. There should be issued a Unique Register, at the state level, that should record all the national insurance agents, every agent being identified by a unique code.

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PROSPECTS CONCERNING THE PROGRESS OF THE AGRICULTURAL EXPLOITATION IN ROMANIA. DEMANDS AND EXIGES CONCERNING ADHESION TO THE E.U.

PERSPECTIVE PRIVIND EVOLUȚIA EXPLOATAȚIILOR AGRICOLE ÎN ROMÂNIA. CERINȚE ȘI EXIGENȚE ÎN VEDEREA ADERĂRII LA U.E.

T. IANCU*, R. GHERMAN**, CORINA RUȘEȚ*

With an agrarian surface of 2,58ha at the beginning of the year 2005 on an individual household property form which represents 70% from the agrarian surface which is in the private sector with a crumble of the ground of 40-45 millions lots; the agrarian production after 1989 lowered in the last years till 50% in some sectors.

Key words: agrarian exploitations, adhesion to E.U.

After 15 of economy in transaction Romanian agriculture is in drift with efficiencies and incomes at the level of the years ’20-’30. There still exist conceptions of agrarian politic which don’t correspond with European agriculture. There is a lack of politic courage for finding some solutions for agriculture’s rehabilitation. It appealed at “remnants” and “million” but the results were inefficient with crumble areas in millions of lots and poor and old farmers who can’t begin a business.

For example in 2001 the production of wheat was of 3200kg but in the family farms, there was obtained between 1000-1500 kg/ha with costs between 4-6 millions/ha. At this was added the wheat’s price between 2200-2400 lei/kg which wasn’t satisfactory. In 2002 exploitation’s costs rose with 30-50% reaching in some areas at 8-10 millions/ha, but the agrarian production was in this year under expectations. The year 2003 doesn’t bring anything new concerning the exploitation’s costs of ground these were even risen with 1-2 millions/ha due to the risen prices at raw materials which are

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necessary for agriculture production. The drought from this year in all part of the country was the cause that the agrarian production hasn’t risen not even at half from the price of production costs, leads at the risen of the price of agrarian products, and at the abandon by some farmers of ground cultivation, that which are property and that which are leased. The year 2004 was an agrarian year better than 2003 concerning the production of cereals but the price was the same as in 2003 at some agrarian products the price lowed. It is very difficult to credit 6 millions of farmers, to watch and control their performances.

The present peasant household isn’t capable to take over and to support modern productive systems, it has a great vulnerability. In 1998, 57,4% of farmer’s families were poor, we find the main cause in the reconstitution of the land property, the agrarian law in 1923 stipulated not to give less than 5 hectares to the peasants in order to become friends and to use the agrarian machines. However, beginning with 2001 it is felt an improvement in reorganization of agrarian production, due to some settlements concerning the foundation of agrarian farms, their size and the government’s support. It is imposed an amendment so that the farms’ dimension don’t have to be restrictive (100 hectares agrarian crops, 50 hectares threes, 1 hectare vegetables) in the last 5 years.

Of the state’s financial support has to benefit all farmers especially those who set up economic viable farms.

It is about a reform of Romanian state. The arguments from above can be illustrated by the example of many countries (Germany, Denmark, Holland, France, Portugal) where the farms have different size as surface, but all of them are subventioned and in Germany firstly those which are small.

As part of this historical reform program the Romanian farmer has to know the criterions and the advantages of the agrarian exploitation in a farm form, doesn’t matter the type of association:

- the farm may be organized by the association of some farmers, who are neighbours, by adhesion, by buying a ground or public farms
- the farm has to have an initial capital to start the production process from banking credits, by government’s subventions
- the farm has to be lead by an agrarian specialist certified by agrarian body and liked by farmers
- the farm’s base is constituted by private property
- the farm may enter in agro alimentary circuit, local or national, or to integrate in cooperatives of products 'capitalization
- the farm apply the agrarian legislation on an economic, financial and technological line
- the farm has the right of technique consultation by agrarian body
- the are organized at local or national level in trade-unions or unions which defend their common interests.

The application of these principles is the government responsibility, of his agrarian body and of the Romanian farmers ‘ organizations which exist ;it is imposed the elaboration of a specific legislative frame, of some acts: The agrarian credit Law, The Agrarian Bank Law, The agrarian exploitations Law, The agro alimentary organizations Law, The crops and animals protection Law. The land Law has to maintain settlements concerning to the use, the protection, the purchase and the sell of the land by farms. As it was mentioned, the small agrarian exploitations will go on to exist. They won’t benefit by support from European contents, so the farmers of these agrarian exploitations have the following alternatives:

1. Their maintaining in exploitation to satisfy their needs without their entrance in the commercial circuit only in an accidental way.
2. To alienate them by selling.
3. To lease them or to enter in family associations or of cooperative type.

The other agrarian exploitations till 100% will be formed in future from exploitations of associative type with surfaces from 10-15 ha till associations with a juridical statute of 150-1500 ha.

An interesting aspect is the purchase of agrarian areas by the U.E ‘s citizens which began before the adoption of the new Romanian constitution at the end of 2003 by buying these lands by some intermediary persons.

Some foreign citizens who bought such kinds of lands especially Italians, Germans, French, merged them and till large surfaces between 7 and 15,000 ha. Others bought tens or thousands of hectares and let them as a follow ground watching two aspects:

1. To take it out from agrarian circuit and to sell it as ground for constructions
2. The growing of ground’s price beginning with 2007 stipulated as the year of Romanian entrance in U.E.
The preparation of Romanian agriculture for the adhesion of U.E., the Romanian structures’ integration in U.E.’s performant and dynamic system from economic, politic and social point of view it is a difficult process which impose a great effort of agriculture reorganization and development in Romania. The settlement 1268/1999 of Europe Council, SAPARD plan connects these efforts in conformity with comunitarian acquis correlated with S.A.P.A.R.D.’s precautions, National Program for Agriculture and Romanian Rural Development with the following strategic objectives:

- Land improvement;
- The development of a competitive agro alimentary sector (the modernization of the remarking structures of agrarian products’ marketing, to realize the quality and control according U.E.’s standards);
- The development of rural economy (the modernization of agrarian exploitations, the development and diversification of economic activities which generate many activities with alternative incomes);
- The development of human resources (by the improvement of professional training of agrarian producers);
- The increase of life style in rural space (by the establish of a good agrarian practice, necessary for rural development and for a lasting agriculture, the development of some production agrarian methods for the environment protection).

The agrarian structures can be efficient in Romania only when the ground as the main way of production is organized to permit the incorporation of a capitalization efficiency, of hand work to obtain quantitative qualitative and economics results in national and international competition.

But the agrarian structures are also the result of rural agrarian population. The national effort of Romanian economy and agriculture’s reorganization together with population contribution and some international programs of supporting the reorganization process make up a good base for starting the development of a performant and lasting agriculture in Romania.

For Romania the integration in U.E. is an economic, social and politic necessity the interest for this being general. In the transition period the agriculture knew a disintegration in the decentralization process but is an element of the adhesion’s strategy. In this conditions the administration and
market discipline’s problems are very important. The necessary adoptions for adhesion behave proper politics as the U.E.’s agrarian structures.

The stage which was crossed till now isn’t appreciated satisfactory especially because of market instability and of agrarian politics which didn’t determinate the specific signals of competitive markets. There weren’t sufficient efforts for the agrarian sector’s reorganization and there weren’t been assured the adaptations created by communitarian standards.

Romania has to intensify the integration effort to give answers for three imperatives.

1. To improve its products competition.
2. To develop new competitive elements as those of U.E. (marks, marketing innovations, commodity, adaptation of commercial organizations to the unique market, important efforts of investments).
3. The finalization and reorganization of quality standards which are entered in U.E.

The main demands to realize a favourable impact of the integration in U.E. impose to give priorities in pre integration period. Because Romania doesn’t dispose till now for the main market administration’s instruments, for the possibilities to support the farmers as U.E. (compensatory payment, bonus for zootechny, rural development program) for the alignment to European standards it is necessary a reform with the main direction through the performance of undertaken measures. At the same time we don’t have to forget that the East extension isn’t conceived to be done to the detriment of the value considered to be the key in the U.E.’ countries and due to the support which was given it could reduce its advantages.

The agrarian products obtained in present in Romania show that our agriculture by its cooperatives advantages and his production structure is competitive not complementary to U.E.

In these conditions the reorganization of agrarian production in the same time with the problems solution of market discipline impose efficient priorities and measures as:

a) the technique modernization and the efficient organization of agriculture basing on options for the formation of viable, family and associative type agrarian exploitations’ system and of a strong sector with an economy that has to integrate with agriculture structure.
b) the subsidiaries organization on products which are functional on contractual bases or through the horizontal and vertical integration of associative type.

c) the priorities agreement for the realization of qualitative parameters of production process and of the products basing on the implementation of the agrarian scientific research and on the education support.

d) The problems’ solution of population supply with the necessary quantities of quality products and accessible prices firstly by the internal market.

e) The improvement of the life style of agrarian producers and of rural population by development priorities’ agreement of rural space.

f) Structural and institutional measures at macroeconomic and structural sectorial level. These measures endorse many aspects as legislation harmonization, agrarian branches reorganization, agrarian performance support, the improvement of commercial relationship with U.E., the realization of an universitary and post universitary preparation system of the specialists who work in the European integration’s programs, the organization of a partnership with U.E. basing on the association Agreement in advantages conditions for Romania, the use of commercial facilities from U.E. by the association Agreement.

The integration of Romanian agriculture in the agriculture’s structures of U.E. is difficult, the respect of some hard restrictions is necessary for the country future because they assure the demanded competition to transform the agrarian economy which is in stagnation, in a vital resource of total development.

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1989 stood for the end of the centralized planning period in Romania and for the debut of the transition to the market economy, a period of economic researches and experiments, with a strong social impact which still goes on. The main structural change which marked the rural zones from Romania at the beginning of the transition was the land reform. In 1990 the agricultural production cooperative were abolished by the spontaneous action of the ex owners.

Key words: transition, to give land, land Law

The majority of the arable surfaces of Romania were given back to the ex owners (who were obliged to become members of the agricultural production cooperative between 1949-1962) or to their heirs by the law 18/1991.

As it was conceived the land reform passed the biggest part of the land (2/3) in the property of some old persons, the ex owners were obliged to become members of the agricultural production cooperative between 1949 and 1962, and in a small part to the young persons from the rural zones. Because the majority of the ex owners (died meanwhile) had had many heirs, who claimed their right of property, at the end of the reform the property structure upon the land was more crumbled than it had been at the beginning of collectivization process in 1949, reaching levels without preceding in Romania.

The land law 18/1991 has the function of returning the property and of the agrarian reform. The law stipulates the constitution and reconstitution of the private property’s right upon grounds (art 8), stipulates the abolition of the agricultural production cooperative (art 26) and the compensation of
ex cooperators in a proportional value level with the surface they had in property when they became members of the agricultural production cooperative and the volume of the work they performed.

**Landed division in Romania (comparison between 1948 and 1998)**

<table>
<thead>
<tr>
<th>Exploitation in %</th>
<th>1948</th>
<th>1998</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under 1 ha</td>
<td>36</td>
<td>45</td>
</tr>
<tr>
<td>1-2 ha</td>
<td>27</td>
<td>24</td>
</tr>
<tr>
<td>over 2 ha</td>
<td>37</td>
<td>31</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

The right of private property upon the communal grounds which have to be used as communal grassland (pasturage), is reconstituted to the town-hall (art.32). The land law doesn’t appeal at juridical modalities regarding the obtain of the landed property (purchase, inheritance, appropriate, donation) generating the expropriation of the lands which were passed to the socialist units through H.C.M. decree 308/1953, 115/1959 and other normative acts.

The law 18/1991, restores the rights of landed property to the peasants who became members of A.P.C. with the land they had between 1945 -1962, it restores the right of property for the owners’ heirs who are members A.P.C. For the owners or heirs who owned less than 10 ha of ground the property right is integral restored, and the surface attributed to the persons who had owned between 10-50 ha is maximum 10 ha too. The agrarian fund law restores the landed property in limit of 10 hectares of arable ground for a family, equal with the constitution of the property right of those families who hadn’t owned ground. The difference of ground till the surface owned in property, is expropriated and it is at the disposition of communal commission for the application of the agrarian fund.

The limitation of the maximum surface through the constitution and reconstitution of the property right to 10 ha, shows the politic conception of obstruction of the private family farms and the pursuit of the agriculture reconstruction of socialist type. In all ex communism countries, excepted Romania, there was legislated the reconstitution of the property law upon the ground (land) and the movement of all means of production (equipments, tractors, constructions) in farmers property; in all countries it
is permitted the sale and the purchase of the land by maintaining the right of preemption at the purchase for farmers, excepted Romania till 1998, in the ex communism countries was legislated the leasing after1990, in Romania this law was legislated in 1995.

The agrarian fund law promotes the production association with the juridical personality. Due to the article 28, the following assets became property of private association with juridical personality: industry workshop, equipments machines and other means of production cooperative abolished, the grounds (lands), the trees plantations and the animals

The main consequences of Romanian agrarian reorganization are:
- the excessive crumble of property and exploitations
- the reduction of animals effectives
- the production diminution at products
- big damages to the patrimony
- irrigation systems destroyed
- exportation diminution at agrarian products
- the import increase

The agrarian fund laws between 1991-2005 bring changes in Romanian social-economic organization. It is proved the crumble of agrarian ground in millions of lots, the deterioration of national irrigation system, the reduction of agrarian machines and equipments.

The peasant has the historic place in agricultural leadership with the hand and without technique equipment. The peasant has to work with old tools.

In such a context the Romanian peasant can’t promote a performed and competitive agriculture. In the present transition that relation industry-agriculture, that conditions the economic increase and the balance between the two branches of national economy doesn’t work.

The industrial agro-alimentary system was disordered and the machines and agrarian equipments’ factories stagnate because they haven’t customers. Unfortunately, the agriculture can’t cover the population’s needs in foods, because Romanian market is invaded with products from other countries. This created big disproportions in Romanian society, in his economic and social mechanisms. Harvests of 2200kg/ha of wheat, 750kg/ha of sunflower and 2300 kg/ha of maize demonstrate the precarious condition of agriculture. The industry produces an infinitesimal number of tractors. There appeared lacks of balance in economy, between industry and
agriculture, the Romanian village became poor and agrarian grounds neglected. The land’s crossing in peasant’s administration without financial support was a failure.

The agriculture confronts with many problems about the plants’ biology, cultivations’ technique, ground, protection, the preservation of ecosystem integrity.

Although there are many governmental programs, till now there weren’t found modalities to stop the agrarian production’s decline. It is necessary the adoption of the following solutions:

- the cooperation’s reconsideration by the promotion of associative forms of ground cultivation, as the only way of developing a modern agriculture, which is tried in 2005 by politic party which are at government by giving a rent to the agrarian owners who sell or lease the agrarian ground.

- the financial and technique support of agrarian associations by state
- machines industry and agrarian equipments’ rehabilitation
- the introduction of agrarian technology instruction in the schools from villages

- the raising of the searching role as a base of an efficiency agriculture

Step by step the transition in agriculture can be finished, with politic will but especially with farmers’ will to organize themselves in viable farms from economic point of view, capable to bring profit and prosperity for them and for rural communities.

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SOME ASPECTS REGARDING THE EXPERIENCE OF THE ECONOMICALLY DEVELOPED COUNTRIES IN THE COOPERATIVE AGRICULTURE

UNELE ASPECTE PRIVIND EXPERIENȚA ȚĂRILOR DEZVOLTATE ECONOMIC ÎN DOMENIUL COOPERAȚIEI AGRICOLE

R. GHERMAN*, COSMINA SIMONA TOADER**

The present human societies even they are politic divided, they have a cultural and an agrarian fund bigger than in the other epoch.

Key words: economic developed countries, agrarian cooperation

In an European synthesis it is differentiated three types of agrarian structures:

- the English system which realized the concentration of the grounds’ property and of the animals effective setting up big farms capable to realize the goods’ production in conditions of resources’ development.

- the Danish system considered the property farm as essential for the production’ s realization, but it developed the cooperation system for supply, remarking, storming, services integrated with alimentary industry for all farms, doesn’t matter their size.

- the cooperative and state Russian system which concentrated the ground, the animals effective, the capital in correlation with remarking and services industry making sure the production’ s concentration and specialization in the big farms but with small differences concerning remuneration.

The average surface evolution on an agrarian exploitation in a period of 40 years (1950-1990) in some of the main countries of European Economic Community is the following:

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Evolution of agricultural exploitation level in some European countries for 1950-1990 period.

<table>
<thead>
<tr>
<th>No.</th>
<th>COUNTRY</th>
<th>1950</th>
<th>1990</th>
<th>Increase in 1990 than 1950 (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Austria</td>
<td>17.8</td>
<td>57.0</td>
<td>320.2</td>
</tr>
<tr>
<td>2.</td>
<td>England</td>
<td>18.0</td>
<td>109.0</td>
<td>605.6</td>
</tr>
<tr>
<td>3.</td>
<td>France</td>
<td>14.2</td>
<td>43.8</td>
<td>308.5</td>
</tr>
<tr>
<td>4.</td>
<td>Germany</td>
<td>6.0</td>
<td>29.3</td>
<td>488.3</td>
</tr>
<tr>
<td>5.</td>
<td>Italy</td>
<td>2.25</td>
<td>9.4</td>
<td>417.8</td>
</tr>
<tr>
<td>6.</td>
<td>Spain</td>
<td>8.75</td>
<td>20.1</td>
<td>229.7</td>
</tr>
</tbody>
</table>

It results that the increase process of the dimension of agrarian exploitations is vast and length. In 40 years the dimensions of agrarian exploitations in the countries used in the research increased 3-4 times touching at 30-100 ha size. In 1950 the exploitations’ size in these countries was much bigger that is 10-18 ha with some small exceptions comparing with 2,4 ha in present the average size of peasant household from our country.

The agrarian cooperation has old customs in the countries with market economy and thus the audience of this experience has a primordial importance in genera and especially nowadays the post communist countries are crossing the way of reintegration in economic, politic and socio-cultural structures from Europe and from the other continents.

An important characteristic of agrarian cooperation from occidental Europe consists in its different weight from a region to another or from a country to another being registered risen weights as in Holland, Italy, Denmark, France some rails from Switzerland or less significant as in Britain Islands some parts with big companies from Germany, Italy, Greece.

In European agriculture the cooperation started as a protection instrument of defensive of the little farmers in their fight for survival in hard conditions of concentration processes in agriculture. This institution is today completed in an increase measure of the economic impact of modernization in technique and technological process which rises problems to
investigations prohibitive for the little and middle farmers who are isolated, their hopes being directed to diverse forms of cooperation.

It is noted that at these processes we assist at a modification of the dimensions of “small” and “middle” property, their crossing from some hectares to tens hectares in a household. This kind of necessities corresponds to the cooperatives of acquisition and use in common of materials, machines, agrarian equipments, reorganization of agrarian exploitations realizing the exploitation in common of the grounds, equipments cooperatives buildings specialized in the realization of some products (milk, meat, wine, mushrooms.)

An increased scope gets the diverse forms of cooperation for the assurance of the necessary credits for the finance of the investments’ activities for financial improvement.

A important direction in the activity of west European agrarian cooperation constitute the representation, the promotion and the farmers interests’ defence. From this point of view, the west European existence, the role of agrarian trade-unions (for example in Switzerland) of other organizations (associations, unions, etc) and their relations with the cooperations from agriculture deserve a special interest. Near the large area of problems from the economic, supply, produce, credit’s sphere, the west European agrarian cooperation assumes many responsibilities concerning the social problems of cooperators, permanent instruction, protection actions of the environment, cultural activities.

The agrarian cooperation from North America situated in a development stage is concretized in a big form variety. In those evolution are set up a series of tendencies to permit the intimation of same elements, valid features not only for this region.

There can be noted the persistence of cooperation traditional forms in agriculture (consumption – supply – retail). Even the weight in the ensemble of cooperative movement diminished in the last years, they still keep their role and their functionality: a part means a third part agrarian production sold by the retail’s cooperatives. It is significant that in 20 years (1966-1986) the total value of retails increases three times from 15,5 milliards dollars to 47,6 milliards dollars.

In the same time it is observed the diversification of cooperation forms in agriculture. In this frame retain the attention the supply cooperatives which assure means of production and services to the farmers
(these realizing 25% from the delivers’ total to farmers). It is amplified the cooperation activity in credit’s sphere, the credit system of farmers (SCF) includes the whole agrarian sphere a great volume of activity for example in 1986 by this system were given credits of 55 milliards dollars to the farmers.

An important tendency consists the amplification of agrarian cooperation in production’s sphere especially dairy-products. The factories from U.S.A. which produces dairy-products deliver 87% from the powder milk’s production, 64% from the butter quantity, 47% from cheese quantity.

In the same context are noted the work cooperatives (farmer’s associations by which they detain and work in common in a farm); mechanization cooperatives (10 farmers who unite their grounds on contracts base, work in common with machines, the expenses and production being distributed proportional with the ground that was brought by each farmer) the leasing type cooperative for cooperatives’ assurance with modern technique.

As a general tendency it has to be mentioned the concentration process in the agrarian cooperation frame. Between 1973 - 1984 the cooperatives number diminished.

This concentration process (and centralization) is in correlation with others as: the concentration on agrarian ensemble and symmetrical a erosion of small and middle farms, the increased dependency of agriculture by the machines producers corporations, agrarian technique or agrarian products remaking, by the politic of modern farms promotion to maintain the competition in U.S.A. in some “green“ markets of the world.

Regarding the concentration can be mentioned the increase of farms’ surface from 66 hectares to 200 hectares, in the same time with a diminish of those number. In this time the number of persons from a farm diminished from 4,9 to 2,4 concomitant with the realization of some lower incomes in these farms comparative with those which are big, the phenomenon promoted by a politic of subventions.

Here can be retained the strategic “motivation“ of cooperation in the north-American economy’s context, its defended position in the support of small and middle farms. Here we have a function of improvement of some macroeconomics processes and tendencies.

The agricultural cooperation societies system holds a special place on societies system and holds a special place on a larger scale in the
Japanese economy. This system actually involves all the farmers in Japan, thus justifying the fact that Japanese farming on its whole is a branch based on cooperative societies.

The state, the policy of active and systematic support for this movement had a very important part in the beginning and the development of the Japanese agrarian cooperation society. This support increase and improved after Second World War when the agricultural received priority in the Japanese economical policy. Meanwhile the law regarding the ending of the feudal relationship was applied. The new direction was concerned with achieving the country’s agrarian autarchy and the main part was that of the cooperative society which was supported by a complex system of economical, organization and financial measures.

Thus he cooperation obtained became an organization frame for the agriculture modernization for the international competition. The result: although there were unfavourable conditions (limited agrarian surfaces, the lack of traditions in agrarian crops) in a short time Japan realized its assurance with agro alimentary products. We don’t have to forget that this modernization process as an organic part of economy’s modernization was carried out in the general context of economic miracle which propel Japan in the top of world’s hierarchy.

One of the factors which competed to the success of this agrarian program was the human psychosocial’s factor, the socio cultural traditions from Japan as: the discipline spirit, the correctness, the advance of work, were human resources for the success of social-economic progress.

In Japan agriculture are remarked two types of cooperation: large profile’s units, those which are multifunctional and those specialized being busy by the obtain of some new products as citric products, dairy products, fodder products, etc.

The last ones represent 30% of the total number of cooperations. Their weight is in a continue increase in the last years especial in pre urban zones which represent 42% from cooperative from this zone considering thepre town agriculture’s development by the training of big part of urban population in agrarian production.

From statistic don’t result which are the proportions of this category with cooperators statute comes from town citizens who left from villages for a long time and how many of them are from town. Such a destination may
have a great importance regarding some aspects of this cooperators category.

The first group of the old citizens for many generations orders by less knowledge, necessary skills in agrarian works having the advantage of a plus of technique formation and receptivity for innovation in general. The second group benefit by the experience’s advantages following from agrarian source keeping a great availability for professional reintegration in this activity domain.

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Romania is part of the richest countries in hydro-mineral resources, holding over 60 per cent from the European resources of mineral water. The Romanian resources of mineral water are distinguished through significant flows and a remarkable spring quality.

**Key words:** market, production, consumption, price.

Romanian market of mineral water may be considered a dynamic one, in continuous increase. In 2004, the mineral water market was estimated at over 1,1 milliard litres, compared to the value of about 1 milliard, in 2003. This increase is due to the extent of the production capacity and to the big marketing investments.

The evolution of the mineral water market can be seen in figure 1. Mineral water market has a significant seasonal feature, with five times bigger sales during the warm season usually, the lowest sales are recorded from the mid January up to the end of February, then the sales grow during spring and they reach the highest levels in summer (May – August).

According to the statistics provided by the Romanian National Society of Mineral Waters (SNAM), mineral water production in 2004 was

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* Banat's University of Agricultural Sciences and Veterinary Medicine, Timisoara - Faculty of Horticulture
994 million litres. The evolution of the natural mineral water production can be seen in figure 2.

**Figure 1.** The development of the mineral water market between 1994-2004 (million litres)

**Figure 2.** The development of the natural mineral water production in Romania (million litres)
A decrease of the mineral water production was recorded in 1993, compared to 1990, from 210 million litres to 116 million litres. Then the production grew between 1994 and 1999, respectively from 155 million litres to 588 million litres. In 2000, the production overtook 700 million litres, reaching in 2002 the level of 839 million litres, and in 2003 the level of 890 million litres. The statistic data show that in the last 10 years the bottled water volume has increased six times.

The mineral water production is destined especially for the internal consumption, only 2-3% is exported. From the 994 million litres bottled last year, 75% represent soda, 10% represent still water and 15% mineral water enriched with carbon dioxide.

If still water had not been usual in Romania until some years ago, practically it had not existed, now this product represents almost 10%, following the Western trend, where the consumption is increasing.

The potential market for the natural mineral water, as food product, is consisted of the whole Romanian population, to which we can add people who cross the country (foreign tourists), totally about 23 millions, the estimated demand for natural mineral water for 2004 being 1,1 milliard litres.

The lack of trust in drinking water from the water supplies, the preoccupation for a healthy body and the change of mentality were the causes for a rapid growth of the mineral water consumption during last years. Even inferior compared to most European countries, this increase shows a continuously increasing market.

Last year, Romanians consumed an average of 40 litres of mineral water, a level much smaller compared to the E.U. one, where the consumption/person is about 100 litres.

The evolution of the natural mineral water consumption, between 1990-2004, can be seen in the following figure.

The lowest mineral water consumption between 1990-2004 was recorded in 1993 – 5,5 litres per person.

The main factors that influence the consumption of mineral water are price, quality, and brand name. There is a strong preference for the Romanian brands, as long as the imported ones are very expensive.
Figure 3. The consumption of natural mineral water from sources managed by the National Society of Mineral Water (SNAM)

Water and package quality is still decisive. Mineral water had been packed exclusively in glass bottles until 1994, but then the PET appeared, and last year it represented about 66%, respectively 2/3 from the Romanian production.

So we may compare to countries like Italy or France (where PET production is even higher, and glass packages are more a luxury production for restaurants and only in a smaller proportion for population), compared to Germany or Switzerland, where the bottled natural mineral water represents the majority. The explanation consists in the fact that the glass bottle is more advantageous in the case of shipping at distances longer than 200 km. Businesslike societies have never dropped out the bottle package.

There are already present on the mineral water market three-four players that overtook the others competitors. Between those on the first place – European Drinks – which bottle over 200 million litres/year and the tenth competitor, which produces only 6-7 million litres, the difference
is very big. The competitors on places 4-5 produce only 50-70 million litres.

Statistic data show that European Drinks has maintained on the first place for soda and still water (19.5%), being followed by Borsec (18%), Dorna (which developed significantly after the inclusion in Coca-Cola – 12%), Perla Harghitei (13%) and Biborteni, who are at small distances one to another and share places 4-5.

The contribution to market of the main companies that bottle mineral water can be seen in figure 4

![Figure 4. The contribution to the market](image)

Mineral water price may increase with up to 10% in the next months, as a result of a 3% customs tax, introduced at the beginning of this year for the import of PET granules, used in the production of plastic packages.

If we consider as reference point the price for a litre of commercialized mineral water to be 10.000 lei, then we may say that the market value of mineral water in Romania would be about 10.000 milliard lei.
Even if the competition is strong in almost each segment of the refreshing drink market, markets being concentrated enough (3/4 of the total mineral water is represented by 5 great producers), and the consumption/person according to the European standards is reduced, the development potential of this market is a very significant one, and even the small producers have the opportunity to develop in the same time with the market.

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THE USE OF AN HYPERBOLIC FOR SUPPLY

UN EXEMPLU DE MODEL HIPERBOLIC PENTRU OFERTĂ

C. MERCE

The linear model for supply has great disadvantages regarding the representativity for the shape and characteristics. In order to eliminate them we propose a hyperbolic model.

Key words: model, supply, linear, hyperbolic.

Economics use often the linear model for supply. This model, which is quite representative for demand, has a great disadvantage when is used for modeling supply.

If we compute elasticity we will find that independently of the particular linear function the function is all the time or inelastic or elastic. Extra, or firstly, the supply being the quantity that a supplier wants and can sell in a period of time, it is not infinite like the linear model let us think.

In order to correct these disadvantages we propose a hyperbolic model for supply, a model that reflects reality much better eliminating that two disadvantages.

In the present article we compared the two models (linear and hyperbolic) in order to better see the differences between them and to highlight the advantages of the hyperbolic model.

1. USED FUNCTIONS

For the linear model we took into consideration two linear functions (one always elastic the other always inelastic) and a hyperbolic function. The functions studied are:

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1. \( P = 50 + 2 \cdot Q \)
2. \( P = -50 + 2 \cdot Q \)
3. \( P = 100 + \frac{5000}{100 - Q} \)

The graphics for the tree functions are:

Graphic 1.
Graphic 2.

Graphic 3.
As we can see in the graphic 3, the supply is limited, having a maximum for \( Q = 100 \). The supply curve is asymptotic to the vertical line passing through \( Q = 100 \). For quantities larger than 100 the model has no economic significance. \( Q = 100 \) Represents the maximum capacity of production or the maximum available quantity of resource.

2. ELASTICITY CALCULUS.

\[
E_{QP} = \frac{P}{Q(P)} \cdot Q'(P)
\]

1. \[
E_{QP} = \frac{P}{0.5 \cdot P - 25} \cdot 0.5 = \frac{0.5 \cdot P}{0.5 \cdot P - 25}
\]

We can observe that the elasticity calculated this way is larger than unity for any \( P \). The equation \( E_{QP} = 1 \) is an impossible equation, an equation without real solutions. If we calculate the limit when \( P \) goes to infinity, this limit is equal to unity.

2. \[
E_{QP} = \frac{P}{0.5 \cdot P + 25} \cdot 0.5 = \frac{0.5 \cdot P}{0.5 \cdot P + 25}
\]

We can observe that the elasticity calculated this way is smaller than unity for any \( P \). The equation \( E_{QP} = 1 \) is an impossible equation, an equation without real solutions. If we calculate the limit when \( P \) goes to infinity, this limit is equal to unity.

3. \[
E_{QP} = \frac{P}{100 + \frac{5000}{100 - P}} \cdot \frac{-5000}{(100 - P)^2} \cdot (-1) = \frac{5000 \cdot P \cdot (100 - P)}{(100 - P)^2 \cdot (15000 - 100 \cdot P)} = \frac{50 \cdot P}{150 - P}
\]
We can observe that the equation $E_{Q,P} = 1$ has a real solution and this is $P = \frac{150}{51} = 2.94$. For $P < 2.94$ the supply is elastic and for $P > 2.94$ the supply is inelastic.

3. SUPPLIER SURPLUS CALCULUS.

One can observe that both linear and hyperbolic functions allow us to calculate the supplier surplus. (Both functions allow the calculus of the indefinite integral.)

For the linear function is obvious that the indefinite integral is a second-degree function.

For the hyperbolic function the indefinite integral is the sum between a linear function and a logarithmic function.

The calculus of the supplier surplus is made through the difference between the multiplying $Q \cdot P(Q)$ and the integral of function $P(Q)$.

\[
SO = Q \cdot P(Q) - \int_0^Q (50 + 2 \cdot Q) = Q \cdot P(Q) - (50 \cdot Q + Q^2)_0^Q \\
SO = Q \cdot P(Q) - \int_0^Q (-50 + 2 \cdot Q) = Q \cdot P(Q) - (-50 \cdot Q + Q^2)_0^Q \\
(100 + \frac{5000}{100 - Q}) = \\
SO = Q \cdot P(Q) - \int_0^Q Q \cdot P(Q) - (100 \cdot Q + 5000 \cdot \ln(Q-100))_0^Q
\]
4. CONCLUSIONS

The hyperbolic model for the supply has advantages because it reflects better the reality (is more representative) both as graphic representation and as supply characteristics.

From the mathematic point of view the work with this model is very convenient, the function being integrable.

In reality the hyperbolic model as a difference to the linear one reflects the fact that the supply is limited very well.

Also, the split of the interval of economic significance in two subintervals for which the supply is inelastic respectively elastic reflects reality and the linear model does not.

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THE INSURANCE OF THE AGRICULTURAL CULTURES AND LIVESTOCK – A MEANS OF PROTECTION AGAINST RISKS

ASIGURAREA CULTURILOR AGRICOLE ȘI A ANIMALELOR – MIJLOC DE PROTECȚIE ÎMPOTRIVA RISCURILOR

LUCIA ANA POJOCA*

In this paperwork, we approach the following more important problems:
- The insurance of the agricultural crops according to the present Romanian legislation, and also our proposals regarding the improvement of this legislation;
- Animal insurance, the international experience and the Romanian legislation regarding this field;
- The improvement of the insurance system regarding animal breeding

Key words: insurance, risks, agricultural, reinsurance.

THE INSURANCE OF THE AGRICULTURAL CULTURES

Agricultural producers may get insurance policies for their agricultural cultures in which the goods insured may be: cereals, technical plants, medicinal and aromatic plants, food vegetables, forage plants, potato and vegetables, cultures for seeds, vineyards, orchards and hops fructification, fruit trees, strawberry plantations, cultures from hothouses, solars and hotbeds, plant nurseries, parent stock plantations, forests.

The risks insured with this type of insurance policy are:
- Fire, produced by natural causes (thunder);
- Direct and indirect effects of the pouring rains:
  - direct effects: wash of the soil around plants and seed uncovering, plants uproot, bursting or inclination of the plants in an advanced vegetation stage, without a further reversion;
  - indirect effects: covering of the plants with silt from slopes.

* Transilvanya Banc, Oradea
- Tempest: powerful winds of up to 80 km/h, often followed by hail and pouring rains;
- Hail effects, consisting of the damage of the vegetative apparatus, plant bursting or breaking, seed shaking, as a result of the mechanical effects or the formation of an ice layer at the ground level;
- Sliding of the cultivated fields, determined by abundant rainfalls or massive land clearings, consisting of the movement of soil layers, on sloping lands or lands located near water flows;
- Autumn early frost (before the 1st of November) or spring late frost (after the 20th of April).

They also may insure supplementary risks as:
- winter frost;
- flood;
- behind time crops.

Insurance companies do not offer damages for losses produced by:
- the diminish of the production due to the non-observance of the agro-technical rules;
- accumulation, puddles or outflows of the water resulted from snow melting, long rainfalls, water infiltrations and the increase of the subsoil water level;
- outflows of the Danube;
- military operations during war.

The insurance covers the damage at the production value suffered through quantitative losses, as follows: for cereals – grain losses; for sugar beet – root or seed losses, depending on the objective aimed by the secured person; for flax and hemp – bundle or seed losses, depending on the case; for potatoes – tuber losses, etc. An exception from this rule is represented by tobacco cultures, for which the insurance covers the qualitative losses produced by hail, too.

The insurance may be got anytime during a year and it is valid for the present agricultural year or for the calendar year, depending on what terms did the parts agreed.

The value of the possible production per ha is established multiplying the average production, obtained per ha in the last three years with normal crops, with the maximal sum that can be insured for each kg.
In the case of the agricultural culture or vineyard crops damaged or
injured by insured risks, but also by another causes, only the damage related
to the insured risks is compensated.

In the case when the damaged agricultural crops are to be sowed or
planted again, the damage degree is taken into consideration only for the
losses produced by the insured risks.

This indicator – damage degree – is established counting the plants,
on their average, for the whole parcel, if crops were evenly affected on the
whole surface, or for the lots evenly affected from that parcel, if crops were
not evenly affected on the whole surface.

We choose a number of sample parcels or rows, on which we count
the healthy plants, then those damaged or injured by insured risks, then
those damaged or injured by causes not included in insurance. We establish
the average number of plants per meter or square meter; we compare the
number of plants damaged or injured by insured risks to the total number of
plants present there before the insured risk, and so we obtain the damage
degree.

LIVESTOCK INSURANCE

Agricultural producers may get insurance policies for: bovines and
buffaloes, horses and mules, sheep and goats, pigs, constituted in categories
using the next criteria:
- groups of species:
  - bovines and buffaloes (bulls, oxen, cows, buffaloes, buffalo
cows):
  - horses and mules (stallions, horses, mares, mules, donkeys);
  - sheep and goats (rams, whethers, ewes, goats, he-goats);
  - pigs (boars, pigs, sows).
- quality classes:
  - common animals;
  - breed animals.
- age groups: 6 months - 1 year old; 6-15 years old; older than 15
  years old (excepting horses);
- conditions of exploitation: production/reproduction;
  traction/burden; slaughter/delivery; special destinations
risks insured by such policy type are:

- **general risks**: fire; lightning; explosion; fall of some objects on buildings; earthquake; flood; tempest; hurricane; hail; vandalism, terrorism, strikes and civil disorders; earth collapse or sliding; snow and/or ice weight, avalanche; the results of pipes damage; impact with vehicles (other than those which belong to the insured person); burglary and results of the burglary or attempt of burglary (by house breaking and/or robbery, violence or threat on owners, housekeepers or watchmen, under the conditions scheduled in the Penal Code).

- **accidents and diseases**:
  - jars and wounds, animal falling or the fall of some objects on animals, the action of electricity, sunstroke, asphyxia, drowning, frost, internal lesions produced by the deglutition of some objects (excepting traumatic reticulitis and pericarditis lesions), dystocia (difficult birth);
  - the results of castration or of other operations or treatments carried out by authorized veterinarian doctors;
  - the attack of wild animals or other animals, snake bites, venomous insect stings;
  - animal intoxication with drugs administrated preventively or curative by the veterinarian authorities, if the diagnose was established by the veterinarian doctor or by an authorized laboratory, and also the animal intoxication produced on pastures, if the diagnose was supervised by the proper authorities;
  - sudden poisoning (intoxication) with herbs, toxic or medicamentary substances, inflation (acute meteorism) due to forage, based on the observation of the veterinarian doctor;
  - medical, obstetrical and surgical diseases; accidents produced or favored by diseases;
  - kill of necessity under the disposal of sanitary-veterinary authorities, after the production of an insured risk which determines animal imminent death;
  - the removal of the animals from the secured person property in order to fight against the infectious anaemia, based on the disposal of the proper authorities;
- animal accidents or diseases caused deliberately or by fault by identified persons (other than the secured person or persons who agreed with the secured person on an act concerning the administration, keeping, supervision or watch of the secured animals), if the intention or guilt is evident in acts established by the proper authorities.

The following cannot be insured:

- animals from households in which hygiene and sanitary-veterinary causes why rules of keeping, feeding, maintaining and using animals are not respected, canimals are threatened with diseases or death;

- sick animals, including the rachitic, exhausted, disabled, blind ones, those who suffered an accident which may cause their death, those from the locations with quarantine, and also the animals examined for tuberculosis, brucelosis or bovine leucosis where the reaction was positive;

- animals belonging to people living in the Danube Delta.

Insurance damages cannot overtake the sum for which the insurance was established, neither the damage quantum nor the animal value from the moment when the insured risk takes place.

By damage quantum we understand the animal value of compensation, from which we subtract the value of the recoveries.

By the animal value of compensation we understand:

a) the value, in the moment when the insured risk takes place, on local market, of a healthy animal of the same species, breed, gender, maintenance status and productivity, for each lost animal;

b) the value established depending on the live brute weight, and on the available contract prices.

When establishing the damage quantum, we take account of the value of recoveries: meat, skin, organs, horns, hooves, hair, wool, etc.

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IDENTIFICATION OF SOME RISKS IN THE AGRICULTURAL-INDUSTRIAL ACTIVITY

IDENTIFICAREA UNOR RISCURI ÎN ACTIVITATEA AGROINDUSTRIALĂ

LUCIA ANA POJOCA

In this paperwork, we present the major risks for the agricultural-industrial activity, namely: the one related to human, and the economic, exploitation and commercial ones. We approach the consequences of these risks, and also the possibilities to prevent, attenuate or avoid risks.

Key words: risk, uncertainty, agriculture

THE RISK RELATED TO HUMAN FACTOR

The human factor is present in each company, regardless of their dimension, and it represents the “motor” that “pushes” the company towards progress.

Risk consists of the company possibility to be led by a person who does not have neither the qualification, nor the abilities necessary for a good manager. The risk regarding the limited qualifications of the other employees in a company is also included in this category. These risks can be prevented through a proper staff selection, especially in the case of the leaders, with measures intending to stimulate the employees in order to be permanently preoccupied by their improvement.

Companies having strategic objectives that need advanced technologies are obliged to refer to professional reconversion of the employed staff. Reconversion possibilities are very low in the cases in which staff qualification level is reduced.

Risk is actually expressed by the comparison between the reconversion necessities and the capacity of the existent human resources to be submitted to reconversion. In many cases, this risk is not taken into account, but sometimes it could be decisive, because it is easier to

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accomplish a technological reconversion than a professional one. In fact, from the strategic point of view, we consider that we must start with the professional reconversion, and then continue with the technological one.

**ECONOMIC RISK**

The economic risk occurs through the variability of the exploitation result, as a sequel of the firm’s incapacity to adapt in time and with the lowest cost to weather variation, leading to the decrease of the exploitation profit or even to the registration of a loss.

The economic risk consists of everything that causes uncertainty in balance accounts and in the technological operation costs, in the quantities and prices of the firm’s products. The economic risk causes uncertainty in obtaining profit, it represents the cause for the changes within economic activity.

The components of the economic risk are represented by: exploitation risk and commercial risk.

**EXPLOITATION RISK**

The exploitation risk reports on the variation of the economic or financial profitableness, in the case in which the company finances its activity from own assets.1

This risk differs from one activity branch to another, from one company to another within the same industry and it can fluctuate during time.

The major factors which influence exploitation risk are:
- demand instability;
- the evolution of sale prices;
- the evolution of provision prices;
- manager’s ability to adapt the prices of entrance into the system to those of exit from that system;
- assets structure, which have implications on fixed costs.
These factors are determined mainly by:
- the features of the branch in which the company activates;
- the capacity of organizing the management.

The exploitation risk depends on:
- general external and internal factors (the increase of raw matter prices, wage increases, decrease of sales as a result of the decrease of demand);
- specific factors which are represented by cost structure, respectively by their behavior towards the volume of activity (which also depends on the technological process and on the efficacy of the current activity administration).

COMMERCIAL RISK

During the achieving of the commercial contract, a series of risks may appear for seller, but also for the buyer. The causes that generate these risks are numerous and can be non-commercial or commercial by nature. The risks included in the group of the non-commercial risks are those determined by: war, expropriation, the change of the political regime, natural disasters, etc.

From our approach point of view, we consider that the commercial risks must be identified from the pre-contractual stage. Especially negotiators have the professional duty to design the strategy within they must place the possible hypothesis of the risk. Obviously, the measurement of the possible consequences of the predictable risks concerning a certain transaction supposes an efficient material gathering from a statistical point of view, in all judicial-economic cases. Within the documentation aiming statistical data belonging to the previous analyzed period, data provided by the prognosis formulated by different specialized institutions or intuited by each merchant must be associated, taking into account the personal experience and studies.

The commercial risk is a complex one, generated, in our opinion, by many risks, whose accomplishment may cause the dimension of the commercial risk. That is why we consider that it is necessary to present in a synthetic way components of a commercial risk:
1) The risk concerning the negotiation which does not finalize with the accomplishment of the commercial contract

It appears in the case in which, by different reasons due to buyer, but also to seller or sometimes to no one, the negotiations do not finalize with the establishment of any contracts. The risks consists of the fact that, during negotiation, some secrets of the business are un-plotted, that the negotiation takes time and money which can be wasted if the business is not accomplished.

2) Price risk

It appears due to the variation during time of the value of transaction, respectively between the moment of contract accomplishment and the moment of payment for the seller.

For an exporter, the problem caused by such a risk is taken into account under the conditions in which the contract price is under the world price, in the moment of payment, and for an importer, this risk consists of the fact that the price established in the contract is bigger than the world price in the moment of payment.

Price risk may also appear after the moment of contract accomplishment due to:
- the commercial factor, which influences price level (the change of expense elements or other causes, economic or political by nature);
- the currency factor, which influences the qualitative dynamics of the goods price.

The price risk also occurs in the cases in which the producer who provides goods at a fixed price may confront with the risk of a price enhancement for his production factors, fact that cancels the predicted income for that delivery.

In order to avoid this risk in the international commercial practice, a series of stipulations is used, aiming to:
- insure of a constant character of the parts’ mutual catering;
- maintain the contract economic equilibrium despite of the changes of the circumstances under which the transaction was accomplished and executed.

These stipulations are:
- the stipulation of the climbed price;
- the stipulation of indexation;
- the goods stipulation;
- the stipulation of price revision.

Avoidance of price risk may be accomplished with the stock exchange techniques (these techniques of protection against price risk will be widely presented in Chapter 5), which are contractual-based operations, too, but different in nature.

3) The risk related to activity field

It occurs in the case in which the character of the activity field imposes the use of some special raw matters that can be found in limited quantities in nature or in a certain geographical area, or if their production needs some certain specific technologies, difficult to be obtained. We mean those products that can be hardly or even impossible obtained.

The risk increases as the supply is essential in the company and it is focused on one or more suppliers who hardly can be replaced by others.

The attitude in risk estimation must be pessimistic, because the breaking point will be always placed in the weakest point.

4) The risk concerning the unfulfilment of goods or services

It occurs in the following situations:
- for seller: the buyer cancels the order one-sided, or refuses to take the goods with no reasons;
- for buyer: the seller cannot accomplish the order from technical or financial reasons, or he does not execute the contract, or he executes the contract in an improper way.

5) Transfer risk

It occurs in the following situations:
- for exporter: the state in which the importer originates refuses to pay with the currency established in contract;
- for importer: payments with no transfer guarantee cannot be accomplished and the goods cannot be paid.
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AGROTOURISTIC EXPLOITATIONS - PRESENT AND FUTURE - IN INFORMATIC SYSTEMS PERSPECTIVE

EXPLOATAȚIILE AGROTURISTICE - PREZENT ȘI VIITOR - DIN PERSPECTIVA SISTEMELOR INFORMATICE

A. MUNTEANU*

A strong development, respectively in order that this type of tourism, the agricultural tourism, to be competitive on the market, it is necessary a certain promotion of it. The main advantages of the Internet service are the speed by which the information is transmitted, the unsophisticated way of work, the presentation of the information in a very accessible way for the user and the large number of computers that are connected within the network.

Key words: informatic systems, Internet service

The extremely diverse rural landscape, mostly well preserved, the country life with significant traditional elements, the agricultural and forest potential of Romania, the specific architecture of the rural environment are just few of the factors which encourages the rural tourism and especially the agricultural tourism.

Thus, by using any kind of Internet service, any Romanian or foreign tourist could gather information about the touristic area which one intends to visit and also about the available means of accomodation.

For a strong development, respectively in order that this type of tourism, the agricultural tourism, to be competitive on the market, it is necessary a certain promotion of it. In addition to the traditional methods of promotion such as: guide books, booklets, folders, catalogues and advertising supplies, nowadays one can promote tourism respectively agricultural tourism by using a service which is going through an impressive advancement - the Internet.

The main advantages of the Internet service are the speed by which the information is transmitted, the unsophisticated way of work, the

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presentation of the information in a very accessible way for the user and the large number of computers that are connected within the network.

All these information about the touristic potential of Romania should also be made known to the foreign tourists. The easiest and cheapest way to do this is through their publication on the Internet, due to the great number of Internet users, number that increases constantly from year to year.

One of the basic features of today’s era is the informational blast, determined by the development pace increase of the society and by the full swing of the science and technique. The name of this phenomenon expresses the situation in which the present volume of knowledge and information doubles at about a 10 year lapse of time which can only be gathered, classified, stocked, processed, or used only through traditional means, proceedings and techniques of data base processing.

By analyzing the informational system as an instrument of the agrotouristic exploitations management, it comes out that in the functional and organizational analysis of a complex economic system, in this case the agrotouristic exploitation, we can distinguish three subsystems:

- the management subsystem
- the executive subsystem
- the informational subsystem.

The pattern that sits at the base of the practical applications in agrotouristic exploitations is the client-server model.

The server is a subsystem which supplies a certain specific type of services for a certain number of user applications beforehand unknown, called clients. The client application sends a message to the server, message which describes a demand of a certain service supplied by the server. The server processes and creates an answer like message for the client, message that might include the demanded information from the client, the result of this fulfillment or an error type message in case the demand could not be done. The network is an ensemble made of two computers minimum which have joint means partitioned and which also sustains the TCP/IP communication type.

The informational of the economic-social activities went through some deep changes, being materialized with the help of the tendencies that take place in the practice of the IT systems development.
In this category of new IT systems enter the following: the opened systems, the e-commerce systems and the marketing informational systems. From the marketing point of view, the promotion patterns of agricultural tourism is possible by at an agrotouristic exploitation, area, region, national and international level.

The Internet type IT systems which represent the starting point of the making of the new applications. The main reasons for which the Internet type IT systems start to impose on the market are:

- the possibility to access the information included in the data base placed anywhere in the world;
- the existence of a standard global interface;
- the possibility to access all the working levels of the data base;
- it is not necessary for the users to have a distinct specialization;
- great coverage zone for the Internet network.

The obtaining of an increased economic efficiency is conditioned by the existence of a scientific leadership based on a good knowledge of the economic laws, the accurate and effective cognition of the demand and supply on the internal and external market, and also the usage of the means of which the agrotouristic exploitation has.

This aspect orders the improvement of the management system at the same time with the one of the IT system through the application of the principles and methods that management and marketing has, on one hand, and on the other hand, informatics with the most efficient methods and proceedings of data gathering, checking, transmitting, stocking and processing.

What implications can the IT systems have for a manager of an agrotouristic exploitation? They spread his skill for a better understanding of process organization and control. With the help of the It systems, managers can use the information in order to solve all the intricate issues within the agrotouristic exploitation, in such way he could successfully extend his business.

An IT system analysis made from the decisional activity point of view at an agrotouristic exploitation level is described with the help of the support decisional systems. Here are some of their basic features:

- they offer manager support;
- they offer support in the decisional activity;
they also offer support for all the decisional activity stages;
they improve the efficiency of the decisional activity;
they use data and patterns;
etc.

Within the agrotouristic exploitation, the basic elements of a support
decisional system are the following:
the data administration component;
the pattern administration component;
the communication guarantee component;
the user interface;
the user.

The main object of an agrotouristic exploitation is to obtain
 agricultural products, respectively carrying out service. All these products
must be efficiently managed. In order that the entire involved activities to be
done with maximum efficiency it is necessary that the management
activities to take place in most propitious conditions and this could be
accomplished only with a suitable informational system, capable to supply
the needed information. Thus, in case of an agrotouristic exploitation the
ensemble of the activities that take place, can be divided into three
categories: implementation activities, leading or management activities and
informational activities.

A very important aspect within the informational system making was
the DMBS defining. The DMBS is a complex program ensemble which
provides the interface between a data base and its users. DMBS is the
software component of a data base system which interacts with all the other
components of this system, providing the connection and the
interdependence between them

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A description of the agricultural tourism concept was made from the Romanian rural household point of view, by emphasizing its importance for the agricultural exploitation. The informatical of the economic-social activities went through some deep changes, being materialized with the help of the tendencies that take place in the practice of the IT systems development.

Key words: informatic systems, agrotouristic exploitations

The main elements that lead to the appearance and growth of agricultural tourism in the 20th and in the 21st century are the complexity of the modern society as well as the length decrease of the working week. The making of the official growth of agricultural tourism premises was made through the identification and through the promotion of some rural regions, with ethno folkloristic and cultural values, placed in a picturesque, natural environment, these being catalogued, at first, as touristic villages. A description of the agricultural tourism concept was made from the Romanian rural household point of view, by emphasizing its importance for the agricultural exploitation. From the performed analysis on the accommodation space, on the activities that take place around the rural household and from the analysis on the agricultural tourism defining methods, it can be said that agricultural tourism might be seen as a system on which numerous outside influences are exerted, and which, on its turn, influence the external environment, presenting itself as an open cybernetic system.

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Thus, by examining all these aspects, as well as those which have an indirect influence on agricultural tourism, it results that this type of tourism is a form with a lot of variety and singleness from the service achievement point of view which can take some very diverse forms and which can also create multiple facilities such as:

- the meals servicing, including traditional menus;
- room, endowments and food obtained in natural conditions, with an increased biological value, in order that the tourists could prepare their own meals;
- the given possibility for the tourists to participate or to assist at many household, local or regional traditional customs such as: socials, village Romanian ring dances, clerical festivals, village and traditional fairs, Romanian pastoral festivals and fairs, weddings, folklore shows and others;
- personal household endowments and arrangements dedicated for recreation and pleasure, for sporting and upkeep activities etc.
Development of accommodation capacity for agroturistic exploitations in 1996 – 2002

One of the basic features of today’s era is the informational blast, determined by the development pace increase of the society and by the full swing of the science and technique. The name of this phenomenon expresses the situation in which the present volume of knowledge and information doubles at about a 10 year lapse of time which can only be gathered, classified, stocked, processed, or used only through traditional means, proceedings and techniques of data base processing.

The informatical of the economic-social activities went through some deep changes, being materialized with the help of the tendencies that take place in the practice of the IT systems development.

In this category of new IT systems enter the following: the opened systems, the e-commerce systems and the marketing informational systems. From the marketing point of view, the promotion patterns of agricultural tourism that is possible, at an agrotouristic exploitation, area, region, national and international level.

The Internet type IT systems which represent the starting point of the making of the new applications start to impose on the market because:

- the possibility to access the information included in the data base placed anywhere in the world;
- the existence of a standard global interface;
- the possibility to access all the working levels of the data base;
- it is not necessary for the users to have a distinct specialization;
- great coverage zone for the Internet network.
The obtaining of an increased economic efficiency is conditioned by the existence of a scientific leadership based on a good knowledge of the economic laws, the accurate and effective cognition of the demand and supply on the internal and external market, and also the usage of the means of which the agrotouristic exploitation has.

What implications can the IT systems have for a manager of an agrotouristic exploitation? They spread his skill for a better understanding of process organization and control. With the help of the IT systems, managers can use the information in order to solve all the intricate issues within the agrotouristic exploitation, in such way he could successfully extend his business.

An pattern is the one of the local IT system. This IT system is destined to be used in the small agrotouristic exploitations having the role to inform the manager of the agrotouristic exploitation about the present situation within the exploitation at a given period of time but which through the medium of integration with a specialized finance accounting IT system to be able to allow the manager to draw up the financial accounting record concordant to the valid legislation.

The powerful element of this patterns is represented through the fact that these can function independently of one another but, at the same time, can be included in a global informational system, this way ascertaining the singleness and complexity of the informational system.

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The aim of this study is based on the premise that stimulating exports in agricultural products is an instrument of the economical development and of the entire Romanian agricultural system development. We realized the analysis of the policy trade in agricultural products in the context of accession process of Romania to the European Union, which involves many changes of the agricultural trade fluxes.

We have to make the following explanation: the term of “agricultural products” is used considering the definitions of the literature in the field and of international organisms which use this notion for naming in the mean time raw agricultural products and food products (processed products).

In the first part of this paper it is made the reviewing of main agreements and treaties which Romania is part of and that permit mutual facilitations between signatory parts. We present forward the analysis of the external policy trade in agricultural products starting 1990 up to present.

**Key words:** politique commerciale, produits agricoles, barrières tarifaires et non tarifaires

Le commerce avec des produits agricoles est totalement liberalisé, il n’y a plus des restrictions commerciales ou quantitatives. La Roumanie est membre de l’Organisation Mondiale du Commerce (OMC) à partir de 1994 et elle respecte les prévisions et les règles de l’Accord pour l’Agriculture d’OMC et elle respecte en même temps les prévisions des autres accords multilatéraux. Par le biais de ces accords, la Roumanie a essayé de réaliser l’augmentation du flux commercial, et particulièrement l’accès sur le marché international des produits agricoles, un fait qui a conduit à

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l’intensification et l’amplification des exportations roumaines dans le monde.


La politique dans le domaine du commerce a des produits agricoles est élaborée par le Ministère des Affaires Etrangères par le biais du Département du Commerce Extérieur et Promotion Economique, en collaboration avec le Ministère de l’Agriculture, des Forêts et Développement Rurale. La politique commerciale dans le domaine de l’agriculture comprends des mesures qui affecte directement et indirectement le marché agricole interne, parce qu’il influence les importations et les exportations par le biais des taxes et subventions, restrictions (cotas, interdictions pour l’exportation) etc. La politique commerciale dans le domaine du commerce extérieur est soumise aux règles négociées et acceptées par tous les pays membres de l’OMC.

La Roumanie est partie signataire des accords internationaux regardant le commerce et elle se trouve dans un processus d’adaptation rapide du secteur agroalimentaire pour les standards de l’UE et aux engagements concernant le marché agricole mondiale.
Le processus de libéralisation graduelle du commerce agricole avec l’UE se trouve dans une permanente dynamique et il a connu plusieurs étapes, par lesquelles les concessions tarifaires desquelles bénéficient les produits roumaines sur le marché européen a été continûment amélioré.

Après 1989, le régime du commerce avec des produits agricoles est caractérisé par une politique de protection douanière réduite, une dispersion tarifaire réduite et une série de barrières tarifaires d’exportation : des prix minimums, des restrictions quantitatives, des prix minimums, contrôle sanitaire excessive. En corroboration avec l’abaissement du production, la pratique de cette politique a mené au déséquilibre du commerce des produits agricoles.

En 1993 on a introduit une nouvelle liste tarifaire pour les produits agricoles, qui assure une protection douanière modéré. La même année il est entré en vigueur l’Accord Intérimaire à l’UE, mais il a eu un rôle mineur pour l’influence du cours du commerce extérieur agricole, parce qu’il n’a pas vraiment contribué au libéralisation substantielle du commerce.


La dynamique du commerce extérieur a été influence par l’application soutenue d’un degré élevé de protection pour l’importation, même si les barrières tarifaires se sont réduites a cause des réglementations externes.

La période après 1997 a été marqué par un engagement soutenu pour la reforme et la libéralisation, corrobore avec des accords établies avec des institutions financières internationales, et elle a produit des échanges essentielles dans le commerce agricole. Dans cette nouvelles étape on a éliminé toutes les interdictions et les contingents a l’exception celles des accords de l’OMC, l’UE et d’autres accords internationaux.

A partir de 2000 d’autres modifications dans la politique commerciale et dans le régime des exportations et importations sont arrive. En juillet 2000, après les négociations bilatérales avec l’UE, la Roumanie
bénéficie des facilités importantes. Conformément au protocole additionnel de l’Accord Européen, 85% des importations européennes de Roumanie et 17% des exportations vers Roumanie sont sans taxes douanières.

En présent, la plupart des produits agricoles bénéficient des réductions et exceptions de taxes douanières pour l’importation, soit pour des quantités illimitées soit pour des contingents tarifaires quand ils sont livrés pour l’UE.


Pour l’harmonisation de la législation roumaine avec l’UE dans le domaine des mécanismes commerciaux, par le biais de document de position dans le chapitre 7 « Agriculture », la Roumanie introduira le système des licences d’importations et exportations et des garanties afférentes, pour quelques produits agricoles.


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MANAGERIAL STYLES IN FARMS

STILURI MANAGERIALE ÎN EXPLOATAȚIILE AGRICOLE

CORINA RUȘET*, I. BRAD*, T. IANCU*

Management process efficiency, concretised in work results in a farm is decisively dependent by the skills of the leader.

Realisation of the work style diagnose approached by the manager in farms is realised through the knowledge and abilities necessary for an individual disposed for manager responsibility assumption, and has a great pragmatic and formative importance for a farm well equipped and with a proper staff, without the diminishing of the competitive level because of the poor personality of the manager.

Key words: manager, management styles

Managerial activity in the farming branches are has a high complexity degree determined by the great number of factors that are contributing the production realisation.

Through the content of their activity, the managers are materialising the main attributes of the management concerning prevision, organisation, coordination, training, command and control – evaluation.

Indifferent by the selection place of the farm managers, and not only, they need to posses some skills, knowledge and abilities with special character, having the task to realise the support of their activity efficiency.

Manager characteristics are grouped in two categories:
- characteristics specific for the activity domain of the organisation: professional knowledge, work abilities, concentration capacity, intelligence, energy, perspicacity, memory etc.;
- skills specific for the management activity: decisional ability, working with people ability – leading and guiding them, emotional stability, creativity, receptivity for new, responsibility, resoluteness, perseverance, etc.

Certain are the fact that the managers, through these characteristics or qualities possess the managing ability, respectively that interpersonal

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Influence, which is practicing on the subordinates during the objectives establishment and realisation process.

In the farm frame, an essential problem for the successful management activity realisation is the management style.

As a domain of the managerial art, management style imposes the harmony between social-human work and technical-economical work through a reciprocal support, helping the organisational activity to be set on a continuous development trajectory of the efficiency and effectiveness.

In agricultural exploitations are many variables that are influencing the managerial style, thus the hierarchical position detained and the qualities of the managed group are mentioned in the range of the specific factors.

Hierarchical position determinate a certain power or an ability of influencing others, being well known the managers from superior hierarchical levels has more power than those from the inferior levels.

Qualities of the leaded group, next the other variables, represent a determinant of the managerial style, being considered the changes during time of their features concerning the size, homogeneity, solving problems ability etc.

Organisational culture has in view some elements as are: comportment rules, rules developed inside the organisation, dominant values adopted by the organisation concerning the products, organisation policy concerning business partners; rules established for a good functioning, spirit and climate that are characterising the organisation in his internal background and in relationship with the environment.

Another important variable, which influences the managerial style, is the organisation structure. This is referring to the homogenous activities grouping in organisational subdivisions, or the mode of work splitting and coordination in specific tasks realised by an organisation.

<table>
<thead>
<tr>
<th>STYLE</th>
<th>AUTHORITARIAN</th>
<th>DEMOCRATIC</th>
<th>PERMISSIVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Policies determination</td>
<td>Policies are exclusively determined by the manager</td>
<td>Policies are discussed, and the decisions are taken through the participation of the entire group</td>
<td>The group has the entire liberty for decision, without any influence of the leader</td>
</tr>
<tr>
<td>Techniques choose and stages elaboration</td>
<td>The manager dictates activity techniques and stages</td>
<td>The manager propose from the beginning 2-3 work techniques from which the group can chose</td>
<td>The manager provides different materials and some supplementary pieces of information, without participation in discussion</td>
</tr>
</tbody>
</table>
Tasks and work mates repartition

| The manager settles for every one the work task and the colleagues with which they will work |
| The group decides in report with the tasks, and the members are free to chose the colleague with which they will work |
| The manager avoids participating to the repartition of the tasks and working colleagues |

Attitude in front of critics and eulogies

| The manager personalize activity eulogies and critics for every member |
| The manager is objective or realistic in eulogia and critics and tries to appear as an equal member of the group |
| The manager is not interesting about the events course and isn’t intervening just when is solicited |

Adapted after: R. Lippitt, R. White, Autocracy and Democracy: An Experimental Inquiry, New York, 1960, p. 26;

Accordingly with Table 1 there are three management styles: authoritarian style, democratic and participative.

a) Authoritarian style is characteristic for mangers that have a very good opinion about their own person, refuses any suggestion coming from the subordinates, adopting suggestions on their own. Their main concern is represented by control, in disadvantage of the creative activities and prevention of dysfunctions.

b) Democratic style is characterized through the stimulation of the subordinates in the objectives settlement, and in the tasks and responsibilities repartition;

c) Permissive style is characterised by the fact that the manager manifests excessive tolerance for the subordinates and doesn’t show a steady position in the case of diverting or the absence of them.

**CONCLUSIONS**

1. Efficiency of the management process, concretised in the results of a farm depends in a decisively way by the leader’s qualities.
2. Adoption of the authoritarian style determinates conflict states between manager and subordinates, influencing fluctuation of the manpower.
3. Democratic style provides the discipline in work and gives an impulse to the continuous professional perfection.
4. Permissive style generates indiscipline in work in appearance of a climate of indifference concerning the farm interests.
They can affirm the efficient manager represents a good combination model of some native abilities with the performance acquired through professional training and experience.

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3. SÂMBOTIN L., 1999 Managementul exploatațiilor agricole,
Concomitantly with the arrangement and organisation of the grasslands, the farmer needs to project and to execute all pastoral utilities that provide the grazing intensification and the increase of the grazing period. Technical equipment of the grasslands with utilities determinate the exploitation level of those. Organisation of the grassland surfaces in exploitation units and plots contribute to the increase of green mass yield and the uniform repartition of the yield in gazing cycles, improving of the botanical composition and improving of the consumability degree of the vegetation carpet.

**Key words:** organisation, surface, grazing

Organization and arrangement of the grazed grasslands has the purpose of the green mass yield increase, prevention and control of the botanical composition degradation and of the soil erosion increase, dimensioning and setting of the grazing plots, grassland repartition having in view the animal species, settlement of the shelter and summer camps and the technical equipment of the natural grassland surfaces.

In the case of the farmer or manager intervention with complex arrangement works, with the purpose of an intensive pastoral system, in this way the pastures and hayfields are agroecosystems.

In arrangement activity, organization and exploitation of the pastures, manager needs to have a solid economic, financial, management and marketing knowledge, because the absence of these knowledge will determinate a decrease of the green mass yield, in the same time determinates an increase of the animal product costs increase.

Romania’s grasslands occupy 4.93 billions hectares from the agricultural surface and represent one of the main fodder resources for the
herbivores (Table 1).

<table>
<thead>
<tr>
<th></th>
<th>Agricultural area</th>
<th>Structure</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>Private property</td>
</tr>
<tr>
<td>Total</td>
<td>14836,6</td>
<td>14288,9</td>
</tr>
<tr>
<td>Arable</td>
<td>9398,5</td>
<td>9047,7</td>
</tr>
<tr>
<td>Pastures</td>
<td>3424,0</td>
<td>3285,7</td>
</tr>
<tr>
<td>Hayfields</td>
<td>1513,6</td>
<td>1479,2</td>
</tr>
<tr>
<td>Vineyards and vine nurseries</td>
<td>259,6</td>
<td>250,8</td>
</tr>
<tr>
<td>Orchards and fruit tree nurseries</td>
<td>240,9</td>
<td>225,5</td>
</tr>
</tbody>
</table>

After Romania’s Statistic Year Book 2003

Green mass obtained from these surfaces in very rich in nutritive substances, has a high consumability degree, and is the cheapest fodder source for the animals, in comparison with the other fodder categories.

Pastures advantages consist compared with other fodder resources are shown only in the case of the application of a proper grazing system.

From the researches is determined that the use of a free grazing system represents an irrational method that leads to the green mass yield decreases, when the rational grazing, which has as basic principle the pasture organisation in plots, presents many advantages as are:
- is limiting the time spent by the animals on a certain surface;
- increases the pastures yields because the plants have enough time for recovery after they are consumed by animals;
- the short time that animals remain in a place they don’t destroy the fallow layer, and the erosion phenomena aren’t appearing;
- grazing cycles are determining a greatest homogenisation of the yields during the vegetation period;
- selective grazing is eliminated because the animals are determined to consume all the species (valuable and invaluable), that reduces the weeds percentage, leading to the botanical composition improvement;
- increase the plants consumability degree;
- increase the animal production (milk, meat) because the animals have at their disposition the fodder in corresponding quantity and quantity;
- opportunity of animal grouping in homogenous categories, that presents great advantages from technical, economical and organisational point of view.

Through the delimitation of the exploitation units the farmers wants to provide the grass for an animal group for entire grazing season, and the dimensioning of the grazing plots is realised with the purpose of providing the necessary green mass for entire animal group for a period of 6-8 days for cattle and 9-10 days for sheep.

This action is realised having in view the medium duration of the grazing period in Romania is 165 days per year, being realised in five cycles of 28-35 days, and the animal groups need to have about 100-125 UVM.

Settlement of the plots number depends by two factors as are: grazing cycle duration and the day’s number that the animals are staying on the pasture.

Plots number is calculated dividing the plots surface recovery duration in days summed with the duration of the animal staying on a plot.

Plots surface is calculated for providing of uniform yield. Because of that, in the case of a uniform grassland plot surface is the report between the total surface and the plots number, all plots having equal surface. If the yields are different, then the surfaces will be unequal, their surface depending by yield.

Plots form is influenced by a series of factors as are: land configuration and level curves, natural delimitation, access roads, water sources. Ideal is that the farmer organizes the pasture in plots with rectangular form; these could be used for strips grazing.

Also, the organizer needs to have in view realisation of the summer camps with a shed or sheep fold form used as shelters for animal when the weather in unfavourable; to settle special water sources in the case of the absenec of the natural water courses in vicinity, and to provide access roads.

**CONCLUSIONS**

Through the delimitation of the exploitation units the farmer follows the providing of the necessary fodder obtained from grass for an animal
group for entire grazing season; and through the dimensioning of the grazing plots needs to provide the necessary green mass for entire animal group.

Concomitantly with the arrangement and organisation of the grasslands, the farmer needs to project and to execute all pastoral utilities that provide the grazing intensification and the increase of the grazing period. Technical equipment of the grasslands with utilities determinate the exploitation level of those. When the shelters and the water sources have the trend to the optimum, and the exploitation territorial units are rationally dimensioned, they are providing the premises for the entire valorisation of the production potential of the grasslands.

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In this paper we present the implications of the common market regulations on the various segments of the agricultural sector. The implications of the reform measures undertaken within this sector are discussed. The reforms made to the major agricultural sectors and their most important regulations are presented.

Key words: agriculture, reform measures, EU integration.

The transition to a market based economy and the implementation of the specific reform measures in the agricultural sector have created huge disfunctionalities. These are observed mostly in the relationships between the agricultural and sylvicultural producers respectively, and the piscicultural and the consumption structures (wholesale dealer, processing agents and retail dealers).

In order to overcome these disadvantages due to the insignificant presence on the market of the individual producers versus the above mentioned structures and in order to synchronize the Romanian agricultural market to the EU policy, an adequate legislation was developed to help constitute the various producer groups [2].

The common organization of the agricultural product markets is based on the communitarian established rules regarding the production levels, quality, reselling of the various categories of agricultural products, as well as the financial support granted from the EU budget to the producers to help compensate some pricing differences observed on the market and to avoid overproduction. The fundamental objectives of the common agricultural policy are the market stabilization, the productivity increase
within the agricultural sector in order to cover the food necessities and to provide a fair living standard for the farmers [1].

The common organization of the agricultural products markets is functional for most of the agricultural products of vegetal or animal origin, arable cultures, wine, olive oil, vegetables and fruits, hop, milk and derivative products, tobacco, honey and productions and products resulting from bovines and cattle, sheep and goats.

The main responsibilities in the common organizing of the market for one specific product reside in the unique pricing of the mentioned product, applicable within the entire intern unified market, granting of funding to the producers or product operators, developing of production control mechanisms and trade management within the member states [3].

Financial support will be provided for the investments towards private farms in the field of vegetables as well as growing various animals, assuring the reorientation of production in order to raise the product quality by means of utilizing competitive technologies which limit the polluting action towards the environment.

At the same time a greater importance is given to the income increase of the agricultural producers, attracting younger people towards agricultural businesses by improving their life quality and working conditions and towards the improvement of the hygiene for the animals.

Financing can be granted to the individual agricultural producers, - natural authorized persons, familial associations with agricultural profile, agricultural companies or private owned companies [4].

The most important mechanisms used in order to achieve these goals refer to the pricing policy, granting of financial support, production control and trade with nonmember states.

At the beginning of each year, the Council determines three prices for the agricultural products as follows: the indicated prices (considered as the price at which the transaction could take place); the initial price (the minimal price at which the imported products can be sold, it is higher than the intervention price and encourages the buying of community products by following the principle of the community preference) and the intervention price (being the guaranteed price at which the authority can buy and deposit the produced amounts).

The financial assistance can be granted in order to encourage production (Council regulations no. 1259/1999 and 1251/1999 respectively),
the increase of the live stock, for the compensation of the losses supported by the farmers relative to international prices, for production marketing, competitiveness increase or for encouraging the quitting of a certain production type or for the conversion of the land or of some agricultural operations. The quotation system and the assurance of national wide product amounts allow the agricultural production control and limit overproduction, as well as proper storing. Through the quota system, the farmers can produce a maximum product amount, the exceeding of this amount leads to a penalty. The supervision can be done by avoiding farming the land, by varying production, by producing starting material for the biomass and getting financial compensation in exchange. The farmers can benefit from financial assistance based on the cattle amount or the farmed land surface.

This is the reason why the export of processed products is highly encouraged. In order to import products, an import license as well as payment of an import tax is required. There are four types of mechanisms which are used in granting financial support, as follows: for production and for intervention (milk and derived products, products derived from cattle, goats and mutton), for production only (hop, tobacco), for intervention only (vegetables and fruits) and for customs protection (flowers, and plants, eggs and products derived from chicken meat).

The common market organization refers to various rearings, wine, vegetables and fruits, hop, tobacco, milk and derived products, red meat, products derived from mutton and goats, honey, live plants [3].

Agricultural cultivations include a high variety of annual crops of great importance like wheat, barley, corn, rye, sunflower, beans, etc. These have an important role within the spending budget of the EU.

The EU occupies the first place among the worldwide wine producers. After a long period of overproduction a balance between consumption and production was finally reached. There is a trend of production diminishing due to measures taken in order to restrain the wine growing surfaces.

The fruits and vegetables sector is governed by the regulation no. 2001/02, which is applicable to each product or product set. The companies have to share out the amounts, proportionally to each producer. This kind of direct payment has made the system more transparent, more flexible, and has grown the responsibility of the producer.
The organization of the hop market implies fresh products as well as dried ones, powder, granules, extracts, aromatic products and other varieties. All the products grown within the EU as well as imported products must be certified to enter the market.

The aim of the tobacco market reform has been the encouraging of high quality production which is less health damaging, taking into account the environmental issues.

The market organizing has led to its stabilization and assuring of a satisfactory life standard for the employees working in this field.

The milk and milk products market is organized towards the reduction of the intervention price, in order to increase the product’s competition potential on the internal as well as on the global market and towards sustaining the farmers by granting them direct financial support.

Concerning the common organization of the beef market, although measures have been taken to diminish intensive production, one can say that the market organization gas not entirely reached its goal. The used tools imply the granting of direct payment per grown animal, limiting of live density for the small producers, following the procedures for the stock depositing and arrangements for trade with third party states [3].

The honey production is encouraged by granting of technical support, restraining of the migration process, sustaining of the laboratories and the research towards the quality improvement of the products. A special attention is oriented towards the agricultural associations with which the member states co-operate in order to implement the national plans regarding the production of honey.

**BIBLIOGRAPHY**

THE IMPORT OF AGRICULTURAL AND AGRO-FOOD PRODUCTS IN ROMANIA

IMPORTUL DE PRODUSE AGRICOLE ŞI AGROALIMENTARE ÎN ROMÂNIA

NICOLETA BUZILĂ*, SIMONA COSTEA*

The majority of the imports is due, mainly, on the one hand to the necessity of economic increasing support and, on the other hand to the manifestation of some random and climatic factors.

Key words: import, agricultural products, agro-food products.

Romania has a significant agricultural potential and a comparative advantage of natural resources and it was a traditional exporter of agricultural products till 1990.

The analysis of the Romanian agricultural trade after 1990 points out a can important change, of its position on the international agricultural markets, from net exporter of agricultural products into net importer with an over $ 5 billion in the last 15 years. The situation points out an increased decline, as a consequence of the agricultural production decrease on the base of the structural reforms of the agricultural property and also of the internal demand growth for various food products of high quality. During the analyzed period, the agricultural trade can be divided into three distinct stages:

- between 1990-1993 - it is a period of strong decline and of negative trade balance;
- between 1994-1999 - a slight recovery of the agricultural trade balance can be noticed;
- between 2000-2004 - a new deterioration of the agricultural trade balance can be observed.

The discrepancy between the potential and the results regarding the agricultural products trade and its balance is more relevant if we take into matter the fact that 35% of the labour force is occupied in the rural

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environment, and the weight of the agriculture in the Romanian Gross Domestic Product (GDP) is of over 11%.

There is a study worked out by the National Committee of Prognosis and the National Institute of Statistics, which puts an emphasis on the fact that 56% of the overall Romanian exports are based on import goods. It is about those goods, which are temporarily imported and then re-exported after being processed in Romania. Talking about the year 2004, the value of these goods represents nearly 10 billions euro from the overall Romanian exports.

Between 1992-2003, the volume of the foreign trade increased from year to year, registering in the year 2004 a growth of 20,000 billion euro on imports, than the year 1992. A more increased growth of the foreign trade can be seen between 1999-2004 when the Romanian exports have grown 2,5 times.

Table 1

The share of the European Union, Central and Eastern Europe imports to Romania (15), as well as the five main membership countries, in an overall importation, between 1992-2004.

<table>
<thead>
<tr>
<th></th>
<th>1992</th>
<th>1999</th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>100,0</td>
<td>100,0</td>
<td>100,0</td>
<td>100,0</td>
<td>100,0</td>
<td>100,0</td>
<td>100,0</td>
</tr>
<tr>
<td>Uniunea Europeană (15)</td>
<td>41,3</td>
<td>60,7</td>
<td>56,5</td>
<td>57,4</td>
<td>58,4</td>
<td>57,7</td>
<td>60,0</td>
</tr>
<tr>
<td>Europa Centrală și de Est</td>
<td>9,1</td>
<td>9,9</td>
<td>9,9</td>
<td>10,3</td>
<td>10,1</td>
<td>11,0</td>
<td>8,8</td>
</tr>
<tr>
<td>Italia</td>
<td>7,8</td>
<td>19,6</td>
<td>18,7</td>
<td>20,0</td>
<td>20,7</td>
<td>19,5</td>
<td>17,4</td>
</tr>
<tr>
<td>Germania</td>
<td>13,2</td>
<td>17,4</td>
<td>14,7</td>
<td>15,2</td>
<td>14,9</td>
<td>14,8</td>
<td>15,0</td>
</tr>
<tr>
<td>Federația Rusă</td>
<td>12,6</td>
<td>6,7</td>
<td>8,6</td>
<td>7,6</td>
<td>7,1</td>
<td>8,3</td>
<td>6,8</td>
</tr>
<tr>
<td>Franța</td>
<td>7,6</td>
<td>6,7</td>
<td>6,1</td>
<td>6,3</td>
<td>6,4</td>
<td>7,3</td>
<td>7,2</td>
</tr>
<tr>
<td>Turcia</td>
<td>2,8</td>
<td>2,2</td>
<td>2,1</td>
<td>2,4</td>
<td>3,1</td>
<td>3,8</td>
<td>4,2</td>
</tr>
</tbody>
</table>

* The preliminar data

An analysis of the reasons, which determines the very weak competitiveness of the Romanian agro-food products on the foreign market, but also of the import consumption necessary coverage, preponderantly in some cases, requires a concurs of internal and external elements. From a
quantitative point of view, we could say that regarding the trade deficit of the agricultural balance, as well as:
- the divided structure of the agricultural exploitation;
- the uncertainty of the integrated systems of distribution and marketing output.

### Table 2

The balance for the agricultural and agro-food products in 2004

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Meat and meat</td>
<td>24,3</td>
<td>241,7</td>
<td>-217</td>
</tr>
<tr>
<td>products</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grains and grain</td>
<td>57,7</td>
<td>281,8</td>
<td>-224</td>
</tr>
<tr>
<td>preparations</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fruit and vegetables</td>
<td>84,4</td>
<td>174,9</td>
<td>-91</td>
</tr>
<tr>
<td>Total</td>
<td>361,7</td>
<td>1.179,8</td>
<td>-718</td>
</tr>
</tbody>
</table>

A very important factor in the advance of the imports of agro-food products in Romania is the sustained increase of the consumption demand for more and more diverse and high quality products.

At the consumers increased pretensions we might add as a favorable element of the importation, the gradual liberalization of trade with the European Union, but also with other countries. As an example we might take a look at the sugar market, which was invaded by the raw sugar imports from Brazil, due to the fact that the government hasn’t been preoccupied in the fate of agriculture.

The joining aspirations of our country to the E.U are, for sure, incompatible with the tariff or non-tariff barriers imposed on the import products.

On the other side, the E.U free quota for the agro-food products importations from Romania are under utilized by the Romanian exporters. One possible explanation of this situation is connected to the type of the general impediments of the Romanian exports growth, that is:
- the weak development of the market infrastructure;
- the inefficacy of the processing industry;
- the poor quality of the meat products and of the dairy produce which do not fulfill the European standards.

If we take a look at the made outputs for the main agro-food products up until the year 2004, if we refer to the domestic consumption,
exclusively the self-consumption, its result is that the made domestic output hasn’t fulfilled the domestic demand. If we take as an example the fowl, the consumption exceeds the domestic output, the difference proceeding from the import.

Table.3

The import condition for the fowl produce

<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Imported quantities (thousands tons)</td>
<td>3</td>
<td>14,4</td>
<td>48,6</td>
<td>23,4</td>
<td>25,8</td>
<td>66,9</td>
<td>92,9</td>
<td>90,5</td>
<td>129</td>
<td>16,6</td>
</tr>
</tbody>
</table>

The same situation, but with more critical accents, we can also find when we take a look at the sugar condition. Thus, at an annual consumption of about 550,000 tons of sugar, in the year 2004, only 40,000 tons of domestic raw material will be provided.

As we could see in table.3, the fowl imports have had an increase in 2004, given the situation in 1996- a quantity of 126,000 tons. The president of the Poultry Breeder Union claims that through the given subventions and through the provided protection, the Romanian fowl can now compete on equal basis with the cheap meat products brought from U.S.A and from Holland.

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2. *** Adevârul economic nr. 7/ 2005, pag. 8;
This paper aims to synthetically present the current causes of economic evasion from Arad County agriculture and food industry.

Key words: lawful procedures, unlawful procedures.

The generally poor condition of Romanian agriculture and food industry can be, also, found on territorial level, varying in intensity from one county to another or from one locality to another. In Arad County, the economic entities having agricultural and food industry profile confronted serious problems. A suggestive image of the two domains dynamic can be noticed by analyzing, on a using manner base, the total agricultural surface, and, also, by analyzing the quantitative production for the main types of food products. The procedures used for committing economic evasion can be classified, as we have already mentioned, in two large categories: lawful procedures, when the evasion is considered legal, respectively, unlawful procedures, when the evasion is illegal.

I. Unlawful evasion (illegal evasion). It consists in eluding the taxation of a part from the taxable matter, without being considered as an act of minor offence or offence. It happens more frequently when existent laws are modified, when new laws are promulgated, as well as, when the Government uses the taxation system, on purpose, to promote certain economic policies. Generally speaking, the content of the legal fiscal evasion is given by granting some fiscal facilities. (exonerations, total or partial exemptions from taxation, reductions), on one hand, and, by the manner in which the taxable matter is assessed (when the incomes earned by some categories of tax payers are imposed on the basis of certain average

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income standards, or, when, different deductions, having a fiscal character, are made from the taxable value), on the other hand.

Beginning with 1990, up to now, similar cases can be found in the legislation regarding agriculture and food industry. In this situation, the legal evasion is made possible through “de facto” implementation itself of the respective juridical norms.

1.1. Granting fiscal facilities is, for Romania, the main way used by the agricultural and food industry companies, for committing legal fiscal evasion.

For example, the first legislative measure which allowed the agricultural companies to commit legal fiscal evasion was generated by the Law no. 12, issued on January 30, 1991 regarding the profit tax. According to the respective regulation, and function of their specific features, the economic entities (excepting government administrations and trade companies with public capital) were totally exempted from profit taxation. This way, units from industry, agriculture and construction domains were exempt from taxation for a period of 5 years from their settlement.

At present, a similar possibility for legal evasion is found at imported agricultural and food products, since, very often, different categories of imported products are temporarily exempted from customs import duties.

Coming back to the profit tax, we have to mention that for the taxes corresponding to the profit used for the development and modernization of the technical and material base, of the manufacturing technologies or for the expansion of the activity, as well as, for investments meant to protect environment, a reduction of 50% could be applied, on the condition that the sum of money equivalent to reduction be used for the same destination.

On July 1, 1993, The Romanian Government Ordinance no. 3 /1992 regarding the value added tax, republished on December 12, 1995 introduced the value added tax (VAT). This tax opened the possibility of committing legal fiscal evasion, by virtue of applying a diminished taxation quota. (initially 9% when the normal VAT rate was of 18%, and, then, 11%, when the VAT quota was of 22%) for fresh animal and poultry meat for fish and fish products (canned and semi-canned, inclusively), for agricultural works, for bread, for consumption and sowing grain.
Later on, by virtue of The Romanian Government Ordinance no. 70 / 29. 08. 1994, regarding the profit tax, the trade companies which obtained, from agricultural activities, an income of, at least 80% from their total income, were applied a profit taxation quota of 25%, with 13% lower than the normal tax of 38%.

When the land owners did not gather to settle agricultural companies, but became natural persons, authorized to develop agricultural activities, they, according to the Law no. 34 / 30. 05. 1994, regarding the taxation on the agricultural income, had the possibility to pay an income tax of 15%. The imposition quota was reduced with 50% if they grew sugar beet, sun flower, soya bean, hemp or cotton, on the condition that, at least 60% of the harvest be contracted with and delivered to the economic agents authorized by the Government.

Moreover, the tax on income from agricultural activities was suspended from 1996 up to 2000, and, then, for two years it was given up. In 2002, the Romanian Government Ordinance no.7/19.07. 2001, regarding the income tax, introduced this tax, again, but only for the natural persons who obtain profit from growing and trading flowers, greens and vegetables, in greenhouses and solariums, as well as from growing and trading bushes, decorative plants, mushrooms and from wine and fruit growing seed beds.

This means that the other categories of agricultural producers (natural persons, other than the above mentioned ones) are exempted from taxes and, consequently, must not pay any tax for the income they obtained. In this case, we may say that all categories of farmers, exempted from fiscal charge, commit, under law cover, fiscal evasion3.

1.2. The manner of assessing the taxable matter is another source which may generate legal fiscal evasion. It can be met only at the licensed natural persons - tax payers, who obtain incomes from agricultural activities, according to the Law no. 571/22.12.2003, regarding the Fiscal Code.

The taxable incomes are established on an income norm base, their value being established, yearly, by specialized territorial authorities, belonging to the Ministry of Agriculture, Forests, Waters and Environment, per surface unit, function of the culture category.

3 Beginning with 01.01.2004, the incomes from agricultural activities are taxed according to the Law no. 671/22.12.2004, regarding the Fiscal code, Title III, Chapter VII
It can be noticed that, when a tax payer obtain a real income, higher than that established function of the income norms, he will pay a lower income tax, the reduction being equivalent to the difference between the real taxable value and the value estimated administratively.

Another situation, in which the taxable matter can be under-assessed, is the tax on natural persons’ income. In this case, deductions can be made from the base calculation, under the form of personal deductions, basic or additional, function of the number of persons in care or function of the tax payer’s own situation and/or of the respective persons’ situation.

According to the Law no. 571/22.12.2003, regarding the Fiscal code, with subsequent modifications the following categories cannot be considered as persons in care: the natural persons who own agricultural or forest surfaces of more than 10,000 m², in hills and fields areas and of more than 20,000 m² in mountains regions, as well as, the natural persons who obtain incomes from growing and trading flowers, greens and vegetables, in irrigated greenhouses and solariums, from growing bushes, decorative plants, mushrooms and from wine and fruit growing seed beds, irrespective of the surface.

It can be noticed that, at the taxable matter level, and, implicitly, at the due taxes level, discrepancies may appear among the tax payer – natural persons. These differences come from the quality of the persons in the tax payer’s care, whether they perform agricultural activities, or not, on larger or smaller surfaces, and, finally, whether they grow certain cultures, or not.

The two above mentioned cases represent illustrative examples of legal fiscal evasion, due to the manner in which the taxable object is assessed and committed with the observance of the legal provisions.

II. Unlawful evasion (fraudulent evasion) or illegal fraud defines the tax payers’ direct and obvious violation of the fiscal laws and consists in their total and partial concealing the taxable matter, with the view of decreasing or eliminating the due fiscal obligations. The illegal evasion can be found on a much more extended scale than the legal one and is committed by violating the legal provisions, by fraud and ill-meaning.

As a social phenomenon, the illegal evasion is a moral problem, since it enlarges the inequality among the fraudulent tax payers and those who honestly pay their fiscal obligations.

At the same time, a fiscal translation, from non-payers to payers, takes place. The factors which contribute to the amplitude of the
phenomenon are connected with the practical possibilities of committing illegal acts, with the taxpayers’ imagination and with their moral character, which is, more often than not, influenced by the life level.

We consider that the diversity of these factors allows us to distinguish several ways of committing illegal evasion, the proper procedures being of traditional, juridical, accountancy and/or evaluation nature.

A. The traditional /dissimulation procedure consists in partially or totally eluding the payment of fiscal obligations, by means of concluding and lodging incorrect or false documents, as well as, by means of nor concluding and nor lodging the documents stipulated by the laws in force.

Generally and precisely speaking, the procedures used by the tax dodgers, consist in:

- Not concluding fiscal statements, lodging incorrect statements and/or lodging false fiscal statements;
- Modification, meaning reduction of the collected sums of money, with the view of reducing the VAT and the taxable profit, by means of collecting cash money, without receipt and by sales without invoice;
- Increasing of expenses, generating, this way, a reduction of the taxable profit, by means of including personal costs, sumptuous expenses, publicity exaggerated costs, even false, unreal costs (regarding employees remuneration and non-existing patents), in the operation costs/expenses;
- Clandestine production of economic goods and services;
- Performing certain professional activities, clandestinely remunerated;
- Reducing the value of transactions regarding chattels personal and/or chattels real;

Beyond the economic real cause, evasion is a stable phenomenon, appearing as a response of the taxpayer to the constraint imposed by the state, as warrant of his social and economic life.

The main shortcomings found out by the inspectors, when controlling the economic unit from agriculture and food industry, within a 3 year period (1999-2002), are as follows:

a) Value added tax (VAT)
• Deductions without legal documents;
• Reduction (by storno/transfer) of the VAT, collected without legal documents;
• Not calculated VAT for payments collected in advance and for sales of fixed means, paid in kind;
• Non-conformity of symbols registered in VAT discounts with those registered in books of the company;

b) Profit tax
• Non-observance of calculation methodology for taxable profit;
• Registration as costs of some expenses with no documents in proof or with no approval based on company articles of association;
• Non-registered incomes or registration of some non-deductive expenses, which led to a wrong calculation of the taxation principle;
• Wrong calculations regarding the profit tax decrease, for re-invested profit, according to the regulations in force;

c) Tax on wages and dividends
• Not-including, in the taxable principle, all incomes;
• Wrong application of the taxation scheme;
• The fiscal statement, not lodged according to the law;

d) Other causes of economic evasion
• Acquiring and trading of goods with no origin documents, as well as non-registration of incomes obtained from their trading;
• Application of lower taxation quotas;
• Registration of some expenses not corresponding to the obtained incomes;
• Decrease of the taxation principle with non-deductive expenses;
• No lodging or lodging unreal fiscal statements;
• Not declared taxable goods or activities, according to the law (natural persons)
• Ignorance of fiscal legislation;
• Development of illegal activities, meaning lack of license or non-observance of the authorized object of activity
• Taking advantage of certain incoherencies, inconsistencies or interpretations of legislation, especially regarding the fiscal facilities granted by law;
Refuse or delay in paying the correctly established fiscal obligations;

**FINAL CONSIDERATIONS**

The fiscal evasion remains one of the economic and social phenomena, having a maximum importance, in the contemporary world. It is a problem which all states confront with, on a more or less large scale. Unfortunately, what can be effectively done, in this domain, is to limit, as much as possible, its consequences, a real eradication being, practically, impossible. The most efficient attitude is to achieve a good management of the phenomenon, meaning its identification, forecasting, control and turning to account, with the view of providing the estimated budgetary incomes.

The main causes of the evasion phenomenon can be synthetically presented, as follows:

- Not knowing, ignoring or abusively applying the legal provisions;
- Modifications of the fiscal legislation, as well as, some imperfections of the law texts, imperfections which have caused a series of wrong interpretations;

As a conclusion, we consider that prevention and limitation of economic evasion can be structured on three strategic directions:

1. To reform the fiscal system, the main objectives being to achieve and use unique control and collecting procedures, as well as, to eliminate imperfections from legislation;
2. To develop consulting and information services for tax payers, with the view of providing them fiscal specialized advice;
3. To consolidate the fiscal control and to follow the tax payments, by means of elaborating selection and programming criteria for control activities;

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THE ECONOMIC IMPORTANCE OF POST SERVICES IN THE RURAL AREA

IMPORTANȚA ECONOMICO-SOCIALĂ A SERVICIILOR POȘTALE PENTRU MEDIUL RURAL

C. LAZARESCU*

The importance of post services for villages was a state problem and at present it became a problem at European level, in the permanent attention of the European Union and also a universal problem, in the attention of the Universal Post Union.

The millennium existence of post services being proved by their use, at first they solved the need of communication and later other needs as well. The people’s interest for developing new ways and modalities to communicate was a constant concern. Access to new ways and means of communication had first of all the people in the urban area and only after those in the rural area. In specialty literature the importance and utility of post services together with special legislation to ensure their functioning are mentioned.

Not only specialists were interested in the existence and functioning of post services but also leaders of states. In the year 1865 the rural post service is organized, and on the 19th of January 1851 the ruler Barbu Stirbei signs the royal document nr. 102 which was published in the Official Monitor no. 7/1851, allowing the extension of rural post as to allow the transport of correspondence between county capitals and regional capitals and between regional capitals and communes.

On the 26th of February 1865 A.I. Cuza signs the decree no. 357 which actually establishes the basis of the rural post, both for official correspondence and private correspondence and sets up the organization of the rural post service. Director Librecht was saying: “An inhabitant will not need to leave his home, but will be able to send mail and receive an answer from one end of the country to the other”.

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In “The History of Romanian Post”, C. Minescu, in 1961 said about the importance of the post: “Modern post is one of the most democratic institutions and as such it serves interests of the highest order, as affairs of state, the interests of great traders and industrialists, as those of the humblest merchant; the interests of townspeople as well as those of the people in the humblest village, the interests of the rich as well as of the poor; and by the use of ingenious combinations it develops and transports all kinds of manifestations of human activity in the entire world, making any distance and any border disappear.”

About its role he was saying: “If we took away this service from trade, industry and peoples all would be dead and the peoples would go back to decay and primitive life.”

As they developed, post services became indispensable for people and society. For the rural area their importance is tremendous because it helps the inhabitants satisfy their personal needs without traveling.

The new era of communications determined the post to get out of the old functioning systems both form a managerial and from a technological point of view. The post service suppliers are compelled, based on new regulations, to adjust and improve traditional post services in accordance to new requests on the part of users and elaborate new products, from the electronic courier to the electronic shopping, so as to use new technologies.

The new policies and commercial trades- The World Trade Organization regulates interstate commercial relationships and administers international agreements regarding the trade of goods and services, especially the GATT agreement (General Agreement on Tariffs and Trade) and the GATS agreement (General Agreement on Tariffs in Services) and decided… at the ministry reunion in Doha in 2001 the beginning of negotiations for the liberalization of all services that make the object of international trade and therefore of post services. An important part in this sense will have the rural post network. (6)

“ The rural post network, especially the one in mountain and island areas, plays an important role in what the integration of enterprises in the national and international economy is concerned, and also in the maintaining of social cohesion and engagement in mountain and island areas. Additionally, rural post offices in the mountain and island areas may furnish an infrastructure network first of all for the universal access to new technologies in the communication sector “.

For the society the post sector is part of the infrastructure which in its functioning is supported by other infrastructures, as for instance ship, air
and railway transportation. The use of the post as infrastructure was and will be recognized because of the advantages and facilities it can offer by means of great care in the labor and function of capital as follows:

a) may reduce the costs of commerce and services in economy (post trade may facilitate public access to desired goods cost-effective);

b) may broadcast information to dispersed groups (in the rural area where the population has no access to modern communication and information means)

c) may favor the success of enterprises at state level (suppliers of goods and services may penetrate in all remote rural areas);

d) may have an important part in the Internet era (Internet can be more efficient if the users also use post services, for instance post trade by means of Internet: in virtual shops buyers can have the product at home by using post services. As consequence of electronic correspondence post services gain a valuable mail and perhaps money transfer);

e) may influence a financial infrastructure at low prices (ensures money transfer in remote rural localities, banking operations, etc).

The importance of post is also recognized by the World Bank which recently declared that:

- it supports the global reform of the post service;
- the central elements of the post projects of the World Bank (interactively) are the following:
  - the reform of the sector policy;
  - the growth of participation in the private sector;
  - the strengthening of the main post operator
- the post reform must be ambitious and suggested that its main objectives be:
  - the dynamics of the whole of post sector;
  - to improve the service quality and respond to client requests;
  - to continue honor universal and social well defined obligations;
  - to prepare for future trade operations and for the competition to come;
  - to better use the State actives;
  - to finance itself as cost-efficient post.

Post services in countries members of the European Union (15 countries) had a great development both socially and economically, those
which implemented the post reform having great achievements in an expanding market.

The evolution of the post sector in the European Union countries:

- economic indices:
  - cash-ins in post services: around 85 billion Euro representing 1% of E.U. NGP
  - employees in the post services:
    - 1.2 million employees in ensuring universal services; and
    - 400,000 employees within messenger and courier express operators;
  - business figure for suppliers of universal service is divided between:
    - courier services: 64%; and
    - parcel and courier express services: 36%.

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To ensure communications, and postal services respectively in the rural area is becoming a must of the lasting rural development. In order to achieve this, knowledge regarding the population and serviced area is needed.

Post services in the Western area, as in the whole country must develop such as to meet all requests and especially to satisfy needs. Needs in the rural area may develop only by employing great speed and efficiency form the village towards the city due to the fact that the development of post services in the rural environment is very costly and is one of the major EU problems regarding rural development. Although they are developed based on other infrastructures, they are part of the village infrastructure.

The rural area of the Timisoara post region is composed of 1334 localities with a population of 751,923 inhabitants, 244,287 households and is serviced by 68 rural post offices and 15 mechanized rural post offices (OPRM), table 1

<table>
<thead>
<tr>
<th>No</th>
<th>Rural Post Offices</th>
<th>No. of Cities</th>
<th>Localities serviced by the office</th>
<th>Population number</th>
<th>Household number</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>OPRM Timis county</td>
<td>4</td>
<td>289</td>
<td>186341</td>
<td>60839</td>
</tr>
<tr>
<td>2</td>
<td>OPRM Arad county</td>
<td>4</td>
<td>209</td>
<td>149587</td>
<td>48263</td>
</tr>
<tr>
<td>3</td>
<td>OPRM Caras Severin county</td>
<td>4</td>
<td>274</td>
<td>108828</td>
<td>32761</td>
</tr>
<tr>
<td>4</td>
<td>OPRM Hunedoara county</td>
<td>3</td>
<td>403</td>
<td>107139</td>
<td>37785</td>
</tr>
<tr>
<td></td>
<td>Total of OPRM DRPT</td>
<td>15</td>
<td>1175</td>
<td>551895</td>
<td>179648</td>
</tr>
<tr>
<td>1</td>
<td>Rural Post Offices TM county</td>
<td>28</td>
<td>34</td>
<td>88625</td>
<td>27240</td>
</tr>
<tr>
<td>2</td>
<td>Rural Post Offices AR county</td>
<td>20</td>
<td>56</td>
<td>71673</td>
<td>23361</td>
</tr>
<tr>
<td>3</td>
<td>Rural Post Offices CS county</td>
<td>6</td>
<td>10</td>
<td>11729</td>
<td>3648</td>
</tr>
</tbody>
</table>

*Tibiscus University of Timişoara, Faculty of Economic Sciences
The rural environment of the Regional Post Direction Timisoara is served by two categories of post offices:

- Rural post offices (OR) serve one locality each in the central and remote rural areas, are 68 in number and serve 159 localities with a population of 200,028 inhabitants and 64,639 households. The ponderated averages on post office are: 2.3 localities/post office; 2941.5 inhabitants/office and 950.5 households/office. Rural offices ensure more services from the range offered by the N.C. The Romanian Post SA

- Mechanized rural post offices (OPRM) are 15 in number and serve 1175 localities with a population of 551,895 inhabitants and 179,648 households in the rural area around cities and a part of the central and remote area.

The ponderated averages per OPRM are: 78.3 localities/OPRM, 36,793 inhabitants/OPRM and 11976.5 households/OPRM. Rural post offices serve the rural environment by the exterior locations - post windows and agencies, the number of post services offered in the rural area being very reduced. This type of offices makes it possible for the correspondence to be distributed at a greater speed in the rural area, but presentation is very weak due to the lack of equipment especially in the prevailing agencies.

In the rural area served by DRPTimisoara in the year 2003 were present: 66 post offices, 151 post windows and 29 rural post points. In the areas around cities 29 rural localities are served by the urban offices.

The number of inhabitants per rural post office is the highest in the Arad county with 3,583.6 inhabitants per office, followed by the Timis county with 3,165.1, Hunedoara with 2000 inhabitants/office and the Caras Severin county with 1,954 inhabitants/office.

The number of inhabitants/OPRM is the highest in the Timis county with 46,5385.2 inhabitants/office, followed by the Arad county with 37,396.5 inhabitants/office, Hunedoara county with 36,713 inhabitants/office and the Caras Severin county with 27,207 inhabitants/office. The average number of inhabitants at the level of DRP Timisoara is 36,79.0 inhabitants/OPRM and 2,941 inhabitants/rural post office - table 2.
The number of inhabitants served by an OPRM is very high, much above admissible standards, and direct service is achieved through exterior offices, post agencies - which prevail-, and post windows.

**Number of inhabitants/ post office in the rural area**

Table 2

<table>
<thead>
<tr>
<th>County</th>
<th>Inhabitants/ OPRM</th>
<th>Inhabitants/ rural post office</th>
</tr>
</thead>
<tbody>
<tr>
<td>Timis</td>
<td>46538.2</td>
<td>3165.17</td>
</tr>
<tr>
<td>Arad</td>
<td>37396.5</td>
<td>3583.6</td>
</tr>
<tr>
<td>Caras Severin</td>
<td>27207.0</td>
<td>1954.0</td>
</tr>
<tr>
<td>Hunedoara</td>
<td>35713.0</td>
<td>2000.0</td>
</tr>
<tr>
<td>DRP Timisoara</td>
<td>36793.0</td>
<td>2941.0</td>
</tr>
</tbody>
</table>

1.1. **Ensuring universal service**

Access to universal service as an essential component of post services implies the creation of post infrastructure (access points). In a recent study emitted by CT-com for the European Commission was realized that the infrastructure of access points is composed of 750,000 access points and 165 million distribution points served on a daily basis. Most access points are for a very dispersed population from a geographical point of view, 99.9% for a volume of 32% of mailings. A number of 0.1% of points have the load of 68% of mail. This imbalance forces FSU to adapt its access infrastructure in order to meet the needs of its clients.

The last restructuring and reorganizing solved the problem of post sending only in what the relationship urban- rural is concerned; the rural-urban and rural- rural is unsolved as yet and mail travels for three or four days.

On a global level traditional post services are in regress and their re-launch is possible and necessary but only by the reform of the post sector and by adapting to the new economical type.

1.2. **Evolution in the post sector**

- Economic indices:
  - cash-ins in post services- around 85 billion Euro representing approximately 15 of the EU NGP
  - employees in post service: 1.2 million employees for ensuring the universal service, 400,000 within messenger and courier express operators;
the business figure for those who ensure universal services is divided between:

- the courier service: 64 %
- and the courier express and parcel service: 36 %

expanding market:

- courier:
  - a growth of 4% in cash-ins
  - and a growth of 3 % in the number of services in the period 1995- 2000;
- direct courier: a growth of 5 % of cash-ins in the period 1995- 2000
- parcels: a growth of over 8 % per year in the period 1995- 2000

The post directive poses problems for the Suppliers of Universal Service (SUS) which felt their position threatened because its implementation led to the loss of monopol and a free post market. This new situation leads to a study and classification of operators depending on services provided and on the other hand a study regarding effective services.

Prevision studies realized in the area of post services estimate for the future that indirectly, in the post service system will be working 1.57 million people and 1.77 million people will indirectly be working in post services.

The same study forecasts that in the future more than 5 million posts will be functioning in the post sector. The present example shows that the European distance and correspondence sales industry uses more than 150,000 posts in the post sector.

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In the management process it is necessary to make, between the production factors used for increasing the production levels, a certain functional relation which aims at the optimum relation. The estimation of analytical index is based mainly on the control of expenses that are made for obtaining the production. Knowledge and utilization by man of the vegetal products among which those coming from aromatic plants had an important role in the history of humankind’s civilization. After the study, the increase of the profit of thyme’s essential oil has been observed.

Key words: economic efficiency, profit, essential oil, synthetic and analytical indicators.

Antibacterial properties of aromatic plants have made people look for different possibilities to obtain concentrates essential oil in the aromatic principle. Hippocrates (460 B.C.) și Theophrast (370 B.C.) lay the scientific foundation of therapeutic utilisations of aromatic plants, then the Greeks and Arabians develop considerably the international commerce with aromatic substances and spices.

Essential oils are final products of metabolism, stored in different parties of plants next to resin, balsams, kauri copals and lignans in vacuolars, cells and intercell channels, glandular hair, scales, etc. These are specific substances for the vegetal kingdom.

Essential oils are in general liquid and oily substances, resembling to glycerides, insoluble in water, but soluble in organic solvents. They have an aromatic smell thanks to the presence of smelling volatile substances. As for the localization of essential oils in plants, there is a large morphological variety concerning the place, organ where we could find them.

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From the point of view of the chemical composition, the essential oils are mixtures of organic substances, belonging to different classes. The composition varies according to the plant nature and depends on the plant’s development, climate and soil. Many times differences can be noticed in the composition of essential oil from different organs of the same plant.

During the biological evolution of the plant, the essential oil suffers compositional changes due to the biochemical processes, which take place and develop from simple to complex.

The synthesis of aromatic substances take place in leaves, where till blossom, they can be find. Blossom produces a migration of these substances in flowers and their partial consumption in the fertilization process. After fertilization, there is an accumulation of these substances in flowers and seeds or a backwards migration to leaves, bark and root.

The antimicrobial action of essential oils is also known and studied today. Many essential oils or their components have proved to be, more or less, antibacterial.

More and more the antifungicides action of essential oils is discovered due to its multiple fields in which they can be applied. The best known action is that one which causes dermatomycosis or is saprophyte on different basis. Few things are discovered regarding the action of essential oils on phytopathogen fungi. The antifungis action of volatile oils is due to their complex composition which determines their quality and is conditioned beside the botanical, genetic, physiological factors and by the geographical, climatic conditions characteristic to each country. The chemical composition of volatile oils plays an important role in the selective biological action, but the mechanism still remains unknown.

Analysing the effect of essential oils, it has been established that they manifest mainly under steams, because steam action at distance is more effective than by direct contact.

The present study, regarding the economic efficiency of different essential oils is based on the same method of obtaining these oils.

The analytical and synthetic index of economical efficiency have been analyzed and compared, their interpretation can be followed provided that in both cases the same quantity of raw material has been established (200 kg plant/batch) and for a better understanding, the calculations were done in Euros.
LEMON ESSENTIAL OIL

Indications: anaemia, precarious circulation, varicose veins, arterial hypertension, aromatic substances, antibacterial, increases the defense capacity of the body, stimulates sanguinic circulation, and it is also astringent. It is used in depression, low immunity, chills, veins affection, and acne, gout, hepatic and spleen diseases.

Table 1. The analytical and synthetic index for lemon essential oil

<table>
<thead>
<tr>
<th>No.</th>
<th>Specification</th>
<th>Value</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Raw material expenses (E\text{rm})</td>
<td>179640 €/year</td>
<td>37,09</td>
</tr>
<tr>
<td>2</td>
<td>Auxiliary material expenses (E\text{am})</td>
<td>67116 €/year</td>
<td>13,86</td>
</tr>
<tr>
<td>3</td>
<td>Equipment damping (E\text{ed})</td>
<td>38973 €/year</td>
<td>8,04</td>
</tr>
<tr>
<td>4</td>
<td>Building damping (E\text{bd})</td>
<td>41933 €/year</td>
<td>8,66</td>
</tr>
<tr>
<td>5</td>
<td>Direct wage (DW)</td>
<td>82440 €/year</td>
<td>17,02</td>
</tr>
<tr>
<td>6</td>
<td>Indirect wage (IW)</td>
<td>24732 €/year</td>
<td>5,10</td>
</tr>
<tr>
<td>7</td>
<td>Income expenses (I\text{e})</td>
<td>32920 €/year</td>
<td>6,79</td>
</tr>
<tr>
<td>8</td>
<td>Interest (I)</td>
<td>16457 €/year</td>
<td>3,39</td>
</tr>
<tr>
<td>9</td>
<td>Total expenses (T\text{e})</td>
<td>484214 €/year</td>
<td>100</td>
</tr>
<tr>
<td>10</td>
<td>Incomes(I)</td>
<td>578840 €/year</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Gain (G)</td>
<td>94627 €/year</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Rate of profit (R\text{p})</td>
<td>19,5</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Cost per unit of product (C\text{up})</td>
<td>198,3 €/kg</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Price of sale (P\text{s})</td>
<td>145 €/kg</td>
<td></td>
</tr>
</tbody>
</table>

THYME ESSENTIAL OIL

Indications: in case of coughs, chills, breathing diseases.

Table 2. The analytical and synthetic index thyme essential oil

<table>
<thead>
<tr>
<th>No.</th>
<th>Specification</th>
<th>Value</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Raw material expenses (E\text{rm})</td>
<td>74400 €/year</td>
<td>20,48</td>
</tr>
<tr>
<td>2</td>
<td>Auxiliary material expenses (E\text{am})</td>
<td>67116 €/year</td>
<td>18,47</td>
</tr>
<tr>
<td>3</td>
<td>Equipment damping (E\text{ed})</td>
<td>38973 €/year</td>
<td>10,73</td>
</tr>
<tr>
<td>4</td>
<td>Building damping (E\text{bd})</td>
<td>41933 €/year</td>
<td>11,54</td>
</tr>
<tr>
<td>5</td>
<td>Direct wage (DW)</td>
<td>82440 €/year</td>
<td>22,69</td>
</tr>
<tr>
<td>6</td>
<td>Indirect wage (IW)</td>
<td>24732 €/year</td>
<td>6,80</td>
</tr>
<tr>
<td>7</td>
<td>Income expenses (I\text{e})</td>
<td>22395 €/year</td>
<td>6,16</td>
</tr>
<tr>
<td>8</td>
<td>Interest (I)</td>
<td>11197 €/year</td>
<td>3,08</td>
</tr>
</tbody>
</table>
Total expenses ($T_e$) 363186 €/year

Incomes($I$) 459080 €/year

Gain ($G$) 95894 €/year

Rate of profit ($R_p$) 26,4

Cost per unit of product ($C_{up}$) 189,2 €/kg

Price of sale ($P_s$) 115 €/kg

TUTSAN ESSENTIAL OIL

Indications: treatment of apathy and depression states of spirit. In the last ten years, 85 million of bottles of medicine based on tutsan have been sold out, the anti-depressive properties of this plant (named “natural Prozac”) being confirmed by many persons.

Table 3. The analytical and synthetic index tutsan essential oil

<table>
<thead>
<tr>
<th>No.</th>
<th>Specification</th>
<th>Value</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Raw material expenses ($E_{rm}$)</td>
<td>46500 €/year</td>
<td>14,04</td>
</tr>
<tr>
<td>2</td>
<td>Auxiliary material expenses ($E_{am}$)</td>
<td>67116 €/year</td>
<td>20,27</td>
</tr>
<tr>
<td>3</td>
<td>Equipment damping ($E_{ed}$)</td>
<td>38973 €/year</td>
<td>11,77</td>
</tr>
<tr>
<td>4</td>
<td>Building damping ($E_{bd}$)</td>
<td>41933 €/year</td>
<td>12,66</td>
</tr>
<tr>
<td>5</td>
<td>Direct wage ($DW$)</td>
<td>82440 €/year</td>
<td>24,89</td>
</tr>
<tr>
<td>6</td>
<td>Indirect wage ($IW$)</td>
<td>24732 €/year</td>
<td>7,46</td>
</tr>
<tr>
<td>7</td>
<td>Income expenses ($I_e$)</td>
<td>19605 €/year</td>
<td>5,92</td>
</tr>
<tr>
<td>8</td>
<td>Interest ($I$)</td>
<td>9802 €/year</td>
<td>2,96</td>
</tr>
<tr>
<td>9</td>
<td>Total expenses ($T_e$)</td>
<td>331101 €/year</td>
<td>100</td>
</tr>
<tr>
<td>10</td>
<td>Incomes($I$)</td>
<td>399200 €/year</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Gain ($G$)</td>
<td>68099 €/year</td>
<td>20,5</td>
</tr>
<tr>
<td>12</td>
<td>Rate of profit ($R_p$)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Cost per unit of product ($C_{up}$)</td>
<td>141,4 €/kg</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Price of sale ($P_s$)</td>
<td>100 €/kg</td>
<td></td>
</tr>
</tbody>
</table>

Taking into consideration that the technological process of obtaining the three types of essential oil is the same, we can observe that, concerning the analytical and synthetic index of economical efficiency, only the raw material expenses vary, the income expenses and the interest, the other
expenses (auxiliary material, equipment damping, building damping, live working expenses) remain unchanged.

**Figure 1 The expenses vary**

Concerning the synthetic index of the economical efficiency it can be noticed a gain, a rate of profit, in the advantage of thyme, although the acquisition price of thyme plants (0.4 €/kg) is almost double than that of tutsan (0.25 €/kg) and much more low than in the case of lemon (0.9 €/kg)
and the price of sale of the finished product (essential oil) does not vary too much (145 €/kg for lemon essential oil, 115 €/kg thyme essential oil and 100 €/kg tutsan essential oil).

**Figure 3 Gain**

**BIBLIOGRAPHIE**

Synthetic index most used in economic practice are the one which mean at production cost, the income and product price, profit, profit rate and work productivity. The most representative synthetic index of economic efficiency is profit rate which expenses percentual the economic efficiency of production process. This index shows us how products succeed get more than another product with the same expense.

Key words: economic efficiency, milk, synthetic index

Analytic index calculus of milk production is based mainly on following the expenses which are executed for the obtaining of milk production. The analytic index of expenses in milk production domain refers mainly at unitary and total consumption of production facts, which are necessary for the realization of followed production.

In milk production the main analytic index of expenses are:
- expenses with prime matery;
- expenses with tools and buildings pay of;
- expenses with energy;
- expenses with work;
- expenses supported from incomes.

From the analytic index total of economical efficiency regarding total expenses, some expenses categories are part of fixed expenses and the other from variable expenses.

Fixed expenses are these expenses which are made during the production process, no matter the quality produced, and the variable one are those expenses which modify their quantity and value in function of obtained product.
From the category of fixed expenses comes:
- tools and buildings pay off;
- expenses with labor force;
- other expenses supported from incomes;

From the variable expenses category take part expenses with prime matery, expenses with auxiliary materials and energy expenses.

The index which represents in the most faithful measure the economical efficiency of the technologic process are the one meaning to the total expenses and to production cost of the complete product.

Total expenses being a sum of all expenses made in production process, for obtaining the complete result for a given date, represents just an orientative value, but not synthetic enough to be compared to other synthetic results in another technological process or in another period of production in comparing frame in time and space.

For having such an index is needed that this analytic index, which represents total expenses, to be divided at total quantity of product obtained in the technological process. The result of this division is a synthetic index named production cost, which already has the advantage of being compared with another similar index.

Synthetic index most used in economic practice are the one which mean at production cost, the income and product price, profit, profit rate and work productivity.

In S.C. Deznalact S.R.L. case synthetic index of economic efficiency were mainly, the one that means at production cost, profit on the production unit and on society and rentability rate.

The most representative synthetic index of economic efficiency is profit rate which expenses percentual the economic efficiency of production process. This index shows us how products succeed get more than another product with the same expense.

Another synthetic index very often used and very valuable is the one that refers at work productivity. In this paper we also analyzed this index which in developed countries is considered the engine index of technological process because making this bigger the work force is going down, the expenses on the production unit and profit are growing on production unit.
In this paper we have calculated work productivity index reporting the obtaining production value at total personal number from unit. In developed countries this index goes for more, reporting the production value obtained only at active person from that unit.

Another synthetic index, that was analyzed, was the one that refers to realized profit on 1000 lei spent which, in our case, represents the profit that the unit is having towards the expenses.

**Expenses structure and volume**

1. **Prime matery expenses**
   
   At S.C Deznalact S.R.L. is collected 800 l milk a day, with a medium fat of 3.6% and a litre of milk is paid with 6500 lei.
   
   \[ 1 \text{ l milk} = 6.500 \text{ lei}; \]
   
   \[ 800 \text{ l milk} = 5.200.000 \text{ lei/day}; \]
   
   \[ 5.200.000 \text{ lei} \times 30 \text{ days} = 156.000.000 \text{ lei/month}; \]
   
   \[ 156.000.000 \text{ lei} \times 12 \text{ months} = 1.872.000.000 \text{ lei/year}. \]

   *Expenses whit prime matery 1.872.000.000 lei/year*

2. **Expenses with rent for used buildings**
   
   The society has a building where they keep the activity, for which they pay a monthly rent of 60€. On the day of calculates the valute course was 39.340 lei for 1 €.
   
   \[ 60€/\text{month} \times 39.340 \text{ lei}/1€ = 2.360.400 \text{ lei/month}; \]
   
   \[ 2.360.400 \text{ lei/month} \times 12 \text{ months} = 28.324.800 \text{ lei/year}. \]

   *Expenses with rent = 28.324.800 lei/year.*

3. **Expenses with energy**
   
   Water- for 1 litre of milk is used water of 56 lei
   
   \[ 1 \text{ l milk} = 56 \text{ lei}; \]
   
   \[ 800 \text{ l milk} = 44.800 \text{ lei/day}; \]
   
   \[ 44.800 \text{ lei} \times 30 \text{ days} = 1.344.000 \text{ lei/month}; \]
   
   \[ 1.344.000 \text{ lei/month} \times 12 \text{ months} = 16.128.000 \text{ lei/year}. \]

   Diesel oil – for obtaining 1 milk litre is used Diesel Oil for 1.370 lei.
   
   \[ 1 \text{ l milk} = 1.370 \text{ lei}; \]
   
   \[ 800 \text{ l milk} = 1.096.000 \text{ lei/day}; \]
   
   \[ 1.096.000 \text{ lei/day} \times 30 \text{ days} = 32.880.000 \text{ lei/month}; \]

   *455*
Electric energy – for obtaining 1 litre milk society uses electric energy of 409 lei/l milk.
1 l milk = 409 lei;
800 l milk = 327,200 lei/day;
327,200 lei x 30 days = 9,816,000 lei/month;
9,816,000 lei/month x 12 months = 117,792,000 lei/year.

Total expenses with energy = 6,128,000 + 394,560,000 + 117,792,000 = 528,480,000 lei/year.

4. Expenses with work force
Monthly salaries are:
- technological engineer – 3,000,000 lei;
- administrator – 3,000,000 lei;
- distributor – 700,000 (2 hours/day);
- driver – 2,800,000 lei;
- workers – 2,800,000 lei.

Table no. 1

<table>
<thead>
<tr>
<th>Expenses with work force</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Technological engineer</td>
</tr>
<tr>
<td>2. Administrator</td>
</tr>
<tr>
<td>3. Distributor</td>
</tr>
<tr>
<td>4. Driver</td>
</tr>
<tr>
<td>5. Workers</td>
</tr>
</tbody>
</table>

TOTAL 181,200,000

5. Indirect expenses with salaries
Indirect expenses with salaries are 33,25% from expenses with work force, percent in which are included:
- 22% assurance (CAS);
- 7% health;
- 3% contribution for unemployment;
- 0.5% work accidents and professional disease;
- 0.75% commission for work cards.

Indirect expenses with salaries: 33,25% x 181,200,000 = 60,249,000 lei/year.
Indirect expenses with salaries: 60,249,000 lei/year.

6. **Other expenses**
   Other expenses represents 10% from expenses with: prime matery, buildings rate, energy and work force.
   
   Other expenses = 10% x (1,872,000,000 + 28,324,800 + 528,480,000 + 181,200,000) = 10% x 2,610,004,800 = 261,000,480 lei/year.

7. **Expenses with profit**
   Expenses with profit are an indirect expense and can represent even more than the direct expense. Expenses with profit are 50% from the expenses with prime matery, energy and work force.
   
   Expenses with profit = 50% x (1,872,000,000 + 528,480,000 + 181,200,000) = 50% x 2,581,680,000 = 1,290,840,000 lei/year.

8. **Total expenses**
   Total expenses represent the sum of all expenses.
   
   Total expenses = 1,872,000,000 + 28,324,800 + 528,480,000 + 181,200,000 + 60,249,000 + 261,000,480 + 1,290,840,000 = 4,222,094,280
   
   Total expenses = **4,222,094,280 lei/yan.**

**Incomes volume**

The society delivers for commerce milk with a contain of lot of 3%

The price of a milk litre is 16,660 lei.

1 l lapte (3% fat) = 14,000 x 0,19% (TVA) = 16,660 lei;
800 l milk/day x 30 days = 24,000 l milk/month;
24,000 l milk/month x 12 months = 288,080 l milk/year;
288,080 l milk/year x 16,660 lei/l = 4,798,080,000 lei/year.

Total incomes = **4,798,080,000 lei/year.**

**Synthetic index of economic efficiency**

1. **Profit**
   Profit = Incomes – Expenses
   Profit = 4,798,080,000 lei – 4,222,094,280 lei;
   Profit = **575,985,720 lei.**
   The analyzed society get’s annual profit of 575,985,720 lei.
2. Profit rate

\[ R = \frac{\text{profit}}{\text{expenses}} \cdot 100 = \frac{575,985,720}{4,222,094,280} \cdot 100 = 13.6\% \]

\[ R = 13.6\% \]

3. Work productivity

\[ W = \frac{\text{Incomes}}{\text{Person.number}} = \frac{4,798,080,000}{6} = 799,680,000\text{ lei / pers. / year} \]

\[ W = 799,680,000\text{ lei / pers. / year} \]

4. Profit for 1000 lei spent

\[ P_{1000} = \frac{\text{profit}}{\text{Expenses}} \cdot 1000 = \frac{575,985,720}{4,222,094,280} \cdot 1000 = 136.42 \]

5. Profit la employees number

\[ \frac{\text{Profit}}{\text{Person.number}} = \frac{575,985,720}{6} = 95,997,620\text{ lei / pers. / year} \]

\[ \frac{\text{Profit}}{\text{emploee}} = 95,997,620\text{ lei / pers. / year} \]

6. Profit at 1000 lei investments

Investments or total value of investments is equal with construction value and total value of tools.

Investments = 28,324,800 lei

\[ \frac{\text{Profit}}{\text{1000 lei invested}} = \frac{\text{profit}}{\text{Investments}} \cdot 1000 = 0.02\% \]

\[ \frac{\text{Profit}}{\text{1000 lei invested}} = 0.02\% \]

BIBLIOGRAPHY

For being able to survive, the organization, generally, and business firms, specially, must appeal on human resources management, namely being able to identify, to recruit, to engage, to asses, to promote, to prepare, to pay and to justify the personnel.

Key words: recruitment, justification, evaluation, improvement, selection.

Human resources management supposes the continuous improvement of all employees’ activities, with a view to realize the mission and organizations objectives.

The managers must assume the responsibility for this process, hi must involve in each action, hi must discuss personally with the employees and to reward and good results.

The main objective for human resources management is to supply knowledge and experience in this field in manner to obtain best and secures performances using the best methods. Those who approach professionally human resource have all the chances to obtain high performances in all activity field of organization.

The politics in human resources, formulated by organization leadership orientates the activity of each employee.

As a part each firm or organization the manager has are essential role in human resources administration because he establish the stakes in recruitment and selection, evaluation and promoting, preparing and improving, paying and justifying politics.

Recruitment represents the activity of identification of persons who have those characteristics required for vacant posts and attraction of these persons in and organization or firm.

* University of Agricultural Sciences and Veterinary Medicine of Banat Timisoara, Faculty of Agricultural Management
The member of recruited ones depends on used methods on the recruitment message and the qualification required. The methods that can influence favorably the recruitment result are: advertising, knowledge net, using of advisers for recruitment, searching of persons, the folder with potential employees, marketing activities.

Recruitment process supposes more steps as seen in figure 1.

Sometimes, the persons with responsibility in recruitment field faces difficulties in taking decisions because exerting these attributions suppose specialty knowledge in human resources, psychology improving work
climate. Recruitment activity may be developed by organization under manager direction or by specialized firms.

Recruitment activity ensures the personnel for the selection. From a big number of candidates the possibility of selection for engage of these who correspond to the post demands is higher.

**Recruitment and selection** activities precede in human resources department at big firms and in little firms the managers, depending on the necessities, establish the post demands (qualification, skills and flexibility’s required).

As administration human resources politics personnel selections is the process in with is choose the best candidate to occupy post in accordance with some criteria.

Firm management or human resources field most fallows candidates’ treatment as part of selection procession to be fairly for all recruited.

**The selection** supposes, under firm manager or field manager direction, the passing through some steps from which we can remember:

- C.V. preparing;
- application;
- filling engage form;
- interviewing for selection;
- testing for selection;
- verifying references.

Personnel selection may be through two methods:

- relying only on diplomas, scientific titles, recommendations and impressions;
- relying on criteria and complex scientific methods.

**Performance evaluation** is a complex process in which is analyzed the dynamic participation of personality compounds of on employee and the reflection of this one in final activity results. This evaluation has high emotional load for the employee because he faces himself and the other employees he is working with.

Evaluations of performance level of each employee suppose the existence of norms, standards to report the activities of new employee for a time period. In this way is assured for the employee: the report on his work results allowing orientating better the new efforts.

The manager must use the periodical evaluation of performances to
achieve the following objectives presentation in figure 2:

**OBJECTIVES**
- to elaborate personal training plans, relying on common objectives after analyses made for strengths and weaknesses
- to identify the grow opportunities of knowledge and performances.
- to inform the general manager and the boards of directors regarding the decisions for payment, promoting, transferring and dismissal.

*Figure 2 Objectives evaluation of performances*

Evaluation performances can play an important part in stimulation of employee development this strengths the trust in his own forces, can bring short term advantages, through salary rise, prime and other benefits, opens promotion perspectives, clarifying some career aims, engraves own ambition about self education.

Human resources manager must create a system which to assure a continuous evaluation for all time of year.

The performance evaluations of employee are:
- made by managers and subordinates;
- self - evaluations made by evaluated one:
- made by mates and coworkers.

Through evaluation process of performances can be obtained information’s which form a base for decisions relied to personnel evaluation; promotions; transfers; salary rises; dismissals; retrogradations.

**Promotion** supposes the pass of a person in a function with a higher salary and responsibility, rewarding the competence and the ambition.
Promoting chance has 3 major advantages:

- can reduce personnel fluctuation;
- supply an important impulse to learn better the trade of profession;
- help on quicker changing of each employee like active number in firm, efficient and creative, because he knows better the firm politics and demands.

Promotion acts like an impulse for the activity over average in actual function, knowledge rise and actual qualifications through learning and improvement.

Training and improving politics have the purpose to grow employee capacity in organization efficiency. The training is directly connected to professional qualifications and the improvement follow the spreading of preparation level is other fields and activities in view of promotion some supplementary responsibilities. It assures for the new employee and for the old employee’s specialty knowledge and promotes a favorable attitude for continuous self-improvement in position or function occupied.

Human resources manager attention must be oriented to prepare the personnel with what is necessary, and then in the same measure of interest growing for a superior preparation or the appearance of some factors that impose technologies change the conditions assurance to continue the preparation.

The preparation methods and techniques are variant, they can be situated in firm or out of firm. If the possibility of contact direct with high level specialist out of firm is created, they recommend to choose the personnel training and in improvement out of organization is specialize units.

When they appeal for internal training in exclusive form of work place training a direct relation appears between the trainer and the trained person.

The trainer must know very well the tough material, the way to train and to enjoy.

The improvement supposes employee’s preparation for future and it is carried on in firm, with professionals from improvement specialized centers or through post – universities courses. It assures for the employees
the necessary preparation for occupying some higher position in organization taking in count the personal ambition of employees.

Improvement programs, well leader and administrated, are a benefit for the individual and for the organization.

BIBLIOGRAPHIE

The success of an integrated information system is assured by the careful choosing of the required data structures and the optimal design of the database. The paper presents a solution for designing and managing the database that comes up in agrotouristical exploitations, and also offers a structure interaction solution according to software engineering standards.

**Key words**: database, design, information system, agrotouristical

The necessity of organizing the activity from all fields by using information systems is outlining more and more. The large amount of information that occurs exceeds the human capacity to process them and that is the reason the computer's intervention is vital. Considering the agrotouristical exploitations an information system considerably make the manager's activity more efficient with the minimum effort for the human operator to solve problems such as reservation processing, location managing, statistics and completing different sort of reports like the daily managing report or services report and even payment reports.

Building an information system as the one mentioned above should begin with designing the system required database. A programming language recommended for the development of such an information system would be C++ with Microsoft Visual Studio C++ development tool, because this programming language offers a high flexibility at structures level comparing to other programming languages.

The data structures the application requires are the following:

---

*Tibiscus University of Timișoara, Faculty of Economic Sciences*
♦ **tagPerson** – represents the data collection for a reservation/accommodation made for a certain person. *tagPerson* contains the following information:
  » a list with the persons to be accommodated;
  » the location chosen at the time the booking was made;
  » additional data about the accommodation (*tagCamp*);
  » additional data about the booking (*tagReservation*);
  » data about the firm that booked the location (*tagFirm*);
  » a list with all the services of the accommodated persons.

♦ **tagCampLocation** – represents the structure itself that memorizes all the data about all the locations within the agrotouristical exploitation. The name of the camping location, its type, number of places, one night price are being mentioned here;

♦ **tagCampServices** – abstracts a single service the touristical unit has performed for the accommodated person. It memorizes the date the service was accomplished, the type of the service, a short description, the price of the service and the part that has already been paid;

♦ **tagPersonalInfo** – is the abstracting of one person that will be accommodated within the agrotouristical exploitation. About each person following information has to be known: complete name, gender, nationality, birth date and place, ID data and domiciliary data;

♦ **tagCamp** – is a structure that memorizes details about actual accommodation accomplishment. Arrival and departure dates are mentioned here and a short description about the traveling reasons in Romania (when necessary);

♦ **tagReservation** – memorizes the following data about the booking accomplishment: booking date, booking modality (fax, telephone, e-mail, personally), payment modality, the sum paid in advance;
♦ **tagFirm** – this structure is being used in case the booking is made by a company. Then the company’s name, registration code, bank, bank number and city will be specified;

♦ **tagProduct** – is the abstracting of a single product in case the touristical unit also sells goods. The name, quantity and price of each product must be specified.

Some of the structures do not contain only members of data but also simple constructors or copy constructors for data initializing, some containing methods constrained only to those structure types. The most complex structure is **tagPerson**, which includes many of the other structures and that is used probably the most in the development of the application. There shouldn’t be considered different lists for the accommodated persons and the ones that are going to be accommodated (the ones that have made a booking), the difference between them being outlined by the arrival and departure date.

The document model that could be used for the mentioned information system will contain the members descriptively mentioned below:

- ♦ a list of the persons that have/will have a some sort of contact with the touristical company, represented by the **Persons** member:
  
  CTypedPtrList <CPtrList, tagPerson*> Persons;

- ♦ a list of the camping locations within the agrotouristical exploitation, represented by the **Location** identificator:
  
  CTypedPtrArray <CPtrArray, tagCampLocation*> Locations;

- ♦ a list with the products offered by the touristical unit, represented by the **Products** member defined as shown below:
  
  CTypedPtrList <CPtrList, tagProduct*> Products;

In order to understand better the data structures and an elegant organizing of the data structures, we shall present the class diagram:
**REFERENCE**

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Agricultural consultancy refers to knowledge sharing to the agricultural producers. The need of the agricultural producers for consultancy is increasing with the development, the diversification and specializing of the agricultural production and the transition from the subsistence farm to the commercial farm. In the same time the level and quality of the services have to grow and the consultancy activity has to be more and more market oriented. The answer to these issues is simple: INTERNET.

**Key words:** consultancy, Internet, agricultural

The Internet is the revelation of the 20th century. Business companies have not hesitated to use it for their own interest, starting from improving the company’s communication system, collaborations, electronic commerce and strategies building. Interactive web sites, e-mail, chat, discussion groups, audio and video conferences allow the access to the internal and external information about the company.

Besides its communicational advantage, there are few reasons that stand for the electronic environment for a business development:

- reducing the costs for products selling;
- company’s promotion;
- products’ value increase;
- new market segments conquering
- clients fidelity
- direct selling;
- easy finding of required information;
- marketing research data gathering;

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* Tibiscus University of Timișoara, Faculty of Economic Sciences
• new profit source;
• reducing business costs.

For the companies these technological, behavioral and organizational implications are extremely high: they ought to restructure their production circuits in order to assure an easier information circuit. On the Internet competition between companies is even harsher.

The Internet explosion and the electronic market have pushed companies to reconsider their development and growth strategies. The clients, behind their monitors, are those who establish the directive lines of evolution, there being some rules concerning client relation management:
• the usage of open technologies;
• choosing rapid technologies;
• concentrating on the client not on the technology;
• external partnership, when required;
• gradual approach of implementation.

The Internet provides the way of solving usual problems by using new means that increase efficiency. The Internet also provides an improvement of communication between the parts involved in the business process, developing the so called business-to-business relationship.

Global standards and agreements help clients to gain trust about electronic payment means (electronic payment safety, reducing electronic piracy) and offers a possibility for successful small and medium companies to compete with previous monopole companies. These standards actually mean communication standards and the state plays an important role by encouraging the implementation of the following:
• telecommunication standards;
• electronic payment means;
• message crypting methods and electronic documents;
• copyrights.

We live in the so called informational age, when there is an answer for any questions, and it is easier than ever to get it, as there is this great world, the Internet, that has changed the whole humanity, its way of reasoning and acting. It is incredible how much one can do with a computer.
connected to the Internet. The Internet network will provide any information with a minimum effort. From general news, weather news, communication, e-mail, e-commerce, e-learning, e-business, everything is on the web, this way saving a lot of precious time. As a consequence of these facts, when needed advice, we tend to turn to the Internet. There are lots of consultancy sites, Romanian or foreign sites that provide answers and advices to any questions.

Consultancy refers to knowledge sharing to the agricultural producers. The need of the agricultural producers for consultancy is increasing with the development, the diversification and specializing of the agricultural production and the transition from the subsistence farm to the commercial farm. In the same time the level and quality of the services have to grow and the consultancy activity has to be more and more market oriented.

The consultancy system objectives are the knowledge and agricultural producers’ improvement in order to make them capable to take efficient decisions in a competitive economical context.

Offering assistance to agrotouristical producers in applying modern agricultural technologies and new methods of running their farms require a high level of consultancy professional skills. Priority domains to require consultancy are the following:

- Farm management;
- Elaborating business plans;
- Agrofood products marketing;
- Feasibility studies and local resource evaluation;
- Financial administration of the farm;
- Modern logistic means usage, computers, global networks, communication networks, modeling, simulating and technical, commercial, financial evaluation software.

A consultancy business in agricultural field in order to be efficient has to follow some specific objectives:

- creating and managing the database and the information that are involved in the agricultural environment and that answer not only the producers request for knowledge but also to other categories that require agricultural consultancy;
• marketing policy promotion in consultancy field;
• increasing the managerial performances at the agricultural farm, considering the existing market conditions;
• organizing professional courses for agricultural producers;
• organizing conferences, fairs and expositions.

Part of its objectives can be easily reached by using the Internet technology as the information’s circuit is at its best there.

There are really a great number of agricultural consultancy web sites which will provide online consultancy about any required problem from the agricultural field, this way diminishing the effort needed for solving business dilemmas and definitely saving the agricultural producer or anyone else interested a lot of precious time.

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In Uzbekistan, on the first and, especially, at the second stage of reform rather high rates carry out formation of farms, as a progressive direction in development of an agriculture. The author describes the process of agrarian reforms, establishment and development of farms in the republic.

Key words: land, ownership, farm, lease, production

Agriculture is the largest sector of the economy in Uzbekistan. About 60% of the population lives in rural areas. The agricultural sector produces over 30% of Uzbekistan’s GDP and 90% of foodstuffs. This sector accounts for 55% of currency receipts and 70% of turnover. Moreover, the agricultural sector executes environmental, social, political, historical and cultural goals. The agricultural sector produces foodstuffs and raw materials for industry, and at the same time it is a major consumer of industrial goods. So, development of other economic sectors is impossible without rise of the agricultural sector.

It is therefore at the first stage of implementation of economic reforms, particular priority was attached to reformation of rural economy in Uzbekistan. The main objective of the agrarian reform is to form efficient competitive agricultural production based on initiative and entrepreneurial ability of commodity producers.

Within independent development is establishing the multi-structural economy in all branches of national economy of republic. This progressive process implements in agrarian sphere by higher rates, that has the special value in usage of excess labor forces, land-water and other resources.
In Uzbekistan, agricultural reorganization has been based on the denationalization of many agricultural enterprises (the transformation of Sovkhoz into Kolkhoz), and the development of a diversity of farm types. The development of different sizes and types of farms is necessary as it enables different producers to organize production in accordance with differing local conditions, and differing market requirements. Each region has different quantities and qualities of land, different demographic structures, different cropping patterns, different market and processing capacities, different political and economic environments. It is therefore important that the emergence of diverse farm types is enabled by legislation which gives producers a wide choice of farm types and the greatest possible freedom in management control.

From numerous of farm types, based on the non-state ownership and conforming to market relations, were selected: the shirkats (collective enterprises), farms and smallholders.

In the result of reformation in the agrarian sphere of economy, the share of the state sector in the gross production reduced from 37.4 % in 1990 to 1.0 % in 2004.

In Uzbekistan, on the first and, especially, at the second stage of reform rather high rates carry out formation of farms, as a progressive direction in development of an agriculture.

The legal basis for formation of farms is the "Law on Farms" (1992, 1998). According to this law the farm establishes on the competitive basis, with allowance for of redundancy labor, specially, both limitation prolific land and water resources to people resident in the rural locality possessing specialized agricultural knowledge, and experience of livestock and plant production. The land plots for farms allocated for long-term lease till 50 years, but not less than 30 years.

A price for land use has been calculated by Uzgiprozem (The Design-Research Institute for Land Use of the Ministry of Agriculture and Water Resources). This price is paid as a tax on land by all land users with rights of permanent possession, and as a rent by farms, and other land users who lease their land. The price represents an index of land quality, location, and access to irrigation representing a proxy measure of profitability.

Land tax regulations and procedures are governed under the "Law on Land Tax" (1992, 1998). Initial non-payment of land tax and rent is
granted to farms for the first two years of their tenure, and smallholders for the first three years.

Since 2003 the government of Uzbekistan has been transforming shirkats into farms with creation of indispensable conditions for increase of profitability of a commodity production. By adopting the "Concept on Farms Development for 2004-2006" (approved by the Presidential Decree in October 2003) the republic announced the course on priority development of farms as the major producer of agricultural commodities. In total, within this period, it is planned to transform 1,100 out of 1,840 unprofitable shirkats or about 65 % of their total quantity. The main indicators of development of farms in 1992 – 2004 are as follows in table 1.

The main indicators of development of farms

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of farms, units</td>
<td>1,900</td>
<td>14,200</td>
<td>31,100</td>
<td>104,000</td>
</tr>
<tr>
<td>Land in farms, hectares</td>
<td>13,300</td>
<td>198,800</td>
<td>653,100</td>
<td>2,935,400</td>
</tr>
<tr>
<td>Share in total structure of land, %</td>
<td>-</td>
<td>3.8</td>
<td>16.7</td>
<td>47.0</td>
</tr>
<tr>
<td>Share in gross production of agriculture, %</td>
<td>1.3</td>
<td>2.6</td>
<td>5.1</td>
<td>20.4</td>
</tr>
<tr>
<td>Average farm size, hectares</td>
<td>7.0</td>
<td>9.0</td>
<td>21.0</td>
<td>28.2</td>
</tr>
</tbody>
</table>

Source: State Statistics Committee of Uzbekistan

The number of farms in Uzbekistan in 2004 is estimated at 104 thousand, against 1,9 thousand in 1992. If, in 1992 the total land area assigned to them amounted 13.7 thousand hectare and the average farm size was about 7.3 hectare, while in 2004 - 2.9 mil. hectare and 28.2 hectare respectively. As a result, the share of farms in a gross production of agriculture in 2004 compared to 1992 grew from 1.3% to 20.4%. In 2004 they produced 51.7% of cotton, 46.2% of grain, 56.4% of rice, 24.4% of silk cocoons, 11.6% of vegetables, 12.9% of fruits and berries, 2.3% of meat, 2.1% of milk, and 4.2% eggs in the country.

In spite of the fact that the majority farms receive rather high yields from the main cultures, their level in separate farms remains low. There are also some unprofitable farms, which are annually liquidated. Many farms have no own means for mechanization of labor-consuming works, cannot satisfy sufficiently their needs on spare parts, the mineral fertilizers, the concentrated forages, and etc.

In the nearest to prospect the further deepening of economic reforms in agrarian sector of the country is planned. The basic priority there is an
accelerated development of farms. Liquidation of 406 unprofitable shirkats with formation on their base nearby 20 thousand farms is expected in 2005. Farms, certainly, are a progressive direction in development of agriculture. At the same time in conditions of market economy efficiency of the enterprise is manufactures of cheaper commodity output. To this requirement answer the large agricultural productions most of all. Advantage of these enterprises is observed and now even at significant narrowing their field of activity, deterioration of financial and economic conditions of managing. They remain as high merchantability enterprises. In shirkats in 2004 the marketability has made: on grain - 67%, on cotton - 100%, on vegetables - 65%, on potato - 43%, on meat - 93%, on milk - 66% and on eggs - 91%.

Considering real advantages of large commodity facilities, reasonably not only to reorganize unprofitable collective enterprises, but also to carry out measures for their effective conducting a social production. It is necessary to create real conditions for development of all categories of facilities, irrespective of a pattern of ownership. With a view of improvement of a financial condition of farms it is necessary to accelerate wide application of leasing and preferential crediting, expediently to accelerate integration and associations of separate farms in different forms of cooperation as it practices in the separate economically developed countries.

CONCLUSIONS

Along with the achieved results, there are a number of problems in development of farms in Uzbekistan. Further development and increasing of economic efficiency in comprehensive activity of farms depends on necessity of improvement of the mechanisms for establishing farms, dilating their independence, contract discipline, improvement of activity of institutes of the bank and financial system, development of manufacturing and market infrastructure in rural areas.

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Organic agriculture is an ecological production management system that promotes and enhances biodiversity, biological cycles and soil biological activity. It is based on minimal use of off-farm inputs and on management practices that restore, maintain and enhance ecological harmony. The principal guidelines for organic production are to use materials and practices that enhance the ecological balance of natural systems and that integrate the parts of the farming system into an ecological whole. The primary goal of organic agriculture is to optimize the health and productivity of interdependent communities of soil life, plants, animals and people.

Key words: organic agriculture, organic farming, organic defined

Organic foods set the standard for top quality freshness, texture, flavor and variety. These foods are produced without the standard array of potentially harmful, environmentally long-lasting agricultural chemicals commonly used on conventional food products since the 1950s. Yet organic farming isn’t primitive, it’s actually farming with our future at heart. Following are some frequently asked questions and answers:

- What is organic agriculture?
- What are certified organic products?
- What does certified organic mean?
- What is behind an organic label?
- What is the difference between “organic” and “natural”?
- Does the consumption of organic food increase exposure to biological contaminants?
- Why is organic food more expensive than conventional food?
- What is the difference between organic and transitional products?

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- What are the environmental benefits of organic agriculture?
- Can organic farmers produce enough food for everybody?
- Where can I get information on organic agriculture methods and management systems?
- Is there any kind economic help for conversion into organic agriculture?
- Where can I get information about consumption and prices of organic commodities?

**What is organic agriculture?** There are many explanations and definitions for organic agriculture but all converge to state that it is a system that relies on ecosystem management rather than external agricultural inputs. It is a system that begins to consider potential environmental and social impacts by eliminating the use of synthetic inputs, such as synthetic fertilizers and pesticides, veterinary drugs, genetically modified seeds and breeds, preservatives, additives and irradiation. These are replaced with site-specific management practices that maintain and increase long-term soil fertility and prevent pest and diseases. Organic agriculture is a holistic production management system which promotes and enhances agro-ecosystem health, including biodiversity, biological cycles, and soil biological activity. It emphasises the use of management practices in preference to the use of off-farm inputs, taking into account that regional conditions require locally adapted systems. This is accomplished by using, where possible, agronomic, biological, and mechanical methods, as opposed to using synthetic materials, to fulfil any specific function within the system.

**What are certified organic products?** Certified organic products are those which have been produced, stored, processed, handled and marketed in accordance with precise technical specifications (standards) and certified as "organic" by a certification body. Once conformity with organic standards has been verified by a certification body, the product is afforded a label. This label will differ depending on the certification body but can be taken as an assurance that the essential elements constituting an "organic" product have been met from the farm to the market. It is important to note that an organic label applies to the production process, ensuring that the product has been produced and processed in an ecologically sound manner. The organic label is therefore a production process claim as opposed to a product quality claim.
What does certified organic mean? Certified organic refers to agricultural products that have been grown and processed according to strict uniform standards, verified annually by independent state or private organization. Certification includes inspection of farm fields and processing facilities. Farm practices inspected include long term soil management, buffering between organic farms and any neighboring conventional farms, product labeling, and record keeping. Processing inspections include review of facility’s cleaning and pest control methods, ingredient transportation and storage, and record keeping and audit control.

What is behind an organic label? The label. An organic label indicates that a product has been certified against specific organic standards. The label carries the name of the certification body and the standards with which it complies. The informed consumer, this label can function as a guide. International standards. At the international level the FAO/WHO, Codex Alimentarius Commission, has produced international guidelines for production, processing, labelling and marketing of organically produced foods to guide producers and to protect consumers against deception and fraud. National standards. The Codex Alimentarius and IFOAM guidelines are minimum standards for organic agriculture, intended to guide governments and private certification bodies in standard setting. Governments can use these texts to develop national organic agriculture programmes which are often more detailed as they respond to specific country needs. Local standards. In some countries (e.g. Germany), individual certification bodies may produce their own standards which can be more stringent than the regulation in force, usually in response to specific consumer demands. Although these are not legally enforceable, private certifiers may be more restrictive than is required by law. Accreditation. Accreditation is a procedure by which an authoritative body evaluates and gives formal recognition that a certification programme is in accordance with the standards of the authoritative body.

What is the difference between “organic” and “natural”? “Natural” often is misrepresented in product labeling to imply “healthful”, but “natural” only means that the product has undergone minimal processing. Unlike products are certified organic, natural products have no certification or inspection system. Also, “natural” does not necessarily relate to growing methods or the use of preservatives.
Does the consumption of organic food increase exposure to biological contaminants? Food safety standards. It is important to realize that all organic foods must meet the same quality and safety standards applied to conventional foods. These include the CODEX General Principles of Food Hygiene and food safety programmes based on the Hazard Analysis and Critical Control Point (HACCP) system, where required by national regulations. Often, however, the standards of the individual organic certification body are even stricter. Manure. One of the suggested sources of micro-biological contamination is manure. The use of manure is common in both conventional and organic systems, the potential for contamination is therefore applicable to both. It is well known that manure is a carrier of human pathogens, but properly treated (e.g. composted), it is both a safe form of organic fertilizer and more efficient nutrient source to crops. E. coli. Another stated source of worry is that of E.coli, especially virulent strains such as 0157:H7. Evidence suggests that such virulent strains develop in the digestive tract of cattle mainly fed with starchy grains. Cattle fed with hay produce less than 1% the E.coli found in the faeces of those fed with grain. As organic cattle are fed with diets containing a higher proportion of hay, grass and silage, reducing the dependency on fodder sources off-farm, organic agriculture invariably reduces the potential risk of exposure. Mycotoxins. As fungicides are not permitted anywhere in the production and processing of organic foods, concerns have been raised about contamination with mycotoxins due to moulds. If ingested in low doses over long periods of time, aflatoxins, the most toxic of these substances, can cause liver cancer. It is therefore important to have good agricultural, handling and processing practices, as required by both organic and conventional agriculture, in order to minimize the potential for mould growth. Post-harvest handling. Packaging, processing, transportation and storage is another point along the path that food travels where contamination could occur, but likewise, this is an argument equally relevant to both organic and conventional foods. The main aim of packaging is to ensure food is microbiologically stable for a defined period, and this is achieved by organic foods.

Why is organic food more expensive than conventional food? Certified organic food. Certified organic products are generally more expensive than their conventional counterparts (for which prices have been declining) for a number of reasons: Organic food supply is limited as
Production costs for organic foods are typically higher because of greater labour inputs per unit of output and because greater diversity of enterprises means economies of scale cannot be achieved; post-harvest handling of relatively small quantities of organic foods results in higher costs because of the mandatory segregation of organic and conventional produce, especially for processing and transportation; marketing and the distribution chain for organic products is relatively inefficient and costs are higher because of relatively small volumes. As demand for organic food and products is increasing, technological innovations and economies of scale should reduce costs of production, processing, distribution and marketing for organic produce. 

**Non-certified organic food.** In many developing countries, there are agricultural systems that fully meet the requirements of organic agriculture but which are not certified. Although the uncertified produce does not benefit from price premiums, some cases have been documented where non-certified organic agriculture increases productivity of the total farm agro-ecosystem, and saves on purchasing external inputs. In developed countries, non-certified organic food is often sold directly to consumers through local community support programmes such as box schemes, farmers markets and at the farm gate. These allow the producer to know exactly what the consumer wants, while the consumer knows where the produce comes from and in the case of box schemes, saves on transport costs through delivery of produce to their homes. In developed countries, non-certified organic produce usually carries a higher price than its conventional counterpart, in accordance with the specific consumer willingness to pay.

**What is the difference between organic and transitional products?** Transitional products have been grown under condition that meet organic growing standards but lack either the required length of time for the land to be free chemical usage or the process for proper certification has not yet been completed. The commitment to switching from conventional farming to organic methods is a difficult one. While not allowed to label their products as organic, labeling as “transitional” allows consumers to support farmers who are moving toward organic certification.

**What are the environmental benefits of organic agriculture?** *Sustainability over the long term.* Many changes observed in the environment are long term, occurring slowly over time. Organic agriculture considers the medium- and long-term effect of agricultural interventions on
the agro-ecosystem. *Soil.* Soil building practices such as crop rotations, inter-cropping, symbiotic associations, cover crops, organic fertilizers and minimum tillage are central to organic practices. These encourage soil fauna and flora, improving soil formation and structure and creating more stable systems. *Water.* In many agriculture areas, pollution of groundwater courses with synthetic fertilizers and pesticides is a major problem. In some areas where pollution is a real problem, conversion to organic agriculture is highly encouraged as a restorative measure. *Air.* Organic agriculture reduces non-renewable energy use by decreasing agrochemical needs. Organic agriculture contributes to mitigating the greenhouse effect and global warming through its ability to sequester carbon in the soil. *Biodiversity.* Organic farmers are both custodians and users of biodiversity at all levels. At the gene level, traditional and adapted seeds and breeds are preferred for their greater resistance to diseases and their resilience to climatic stress. *Genetically modified organisms.* The use of GMOs within organic systems is not permitted during any stage of organic food production, processing or handling. As the potential impact of GMOs to both the environment and health is not entirely understood, organic agriculture is taking the precautionary approach and choosing to encourage natural biodiversity. The organic label therefore provides an assurance that GMOs have not been used intentionally in the production and processing of the organic products. *Ecological services.* The impact of organic agriculture on natural resources favours interactions within the agro-ecosystem that are vital for both agricultural production and nature conservation. Ecological services derived include soil forming and conditioning, soil stabilization, waste recycling, carbon sequestration, nutrients cycling, predation, pollination and habitats. By opting for organic products, the consumer through his/her purchasing power promotes a less polluting agricultural system. The hidden costs of agriculture to the environment in terms of natural resource degradation are reduced.

**Can organic farmers produce enough food for everybody?** *Food security.* Food security is not only a question of the ability to produce food, but also of the ability to access food. Global food production is more than enough to feed the global population, the problem is getting it to the people who need it. Organic farms grow a variety of crops and livestock in order to optimize competition for nutrients and space between species: this results in less chance of low production or yield failure in all of these simultaneously.
This can have an important impact on local food security and resilience. At the global level, however, and with the present state of knowledge and technology, organic farmers cannot produce enough food for everybody. Organic agriculture and yields. The performance of organic agriculture on production depends on the previous agricultural management system. In fact, many multiple cropping systems, such as those developed by small holders and subsistence farmers, show higher yields in terms of total harvest per unit area. These yield advantages have been attributed to more efficient use of nutrients, water and light and a combination of other factors such as the introduction of new regenerative elements into the farm and fewer losses to pests and diseases. It can be concluded that increased yields on organic farms are more likely to be achieved if the departure point is a traditional system, even if it is degraded. Organic agriculture and food security. Persisting world hunger has demonstrated that agriculture alone (be it conventional or not) cannot alone solve food insecurity. Still, many questions are asked with regards to the ability of organic agriculture to provide food - and many speculations are made, without any comprehensive data basis. No global evaluation on the contribution of organic agriculture to food security exists, essentially due to the small place it occupies within the agriculture sector as a whole.

Where can I get information on organic agriculture methods and management systems? The management system of an organic farm is the key to success. However, there are many information gaps and knowledge on technical details is often scarce, especially in developing countries. Technical information needs to be very location- and product-specific. Advancements to date have largely been due to private investment, including consumers' willingness to pay for organic products and farmers' creativity and desire to undertake on-farm experimentation. Research institutes are starting to pay attention to organic agricultural practices and approaches and improved understanding of natural resources process and interactions within organic systems are under investigation.

Is there any kind economic help for conversion into organic agriculture? Many northern countries (e.g. EU member states and the USA) do provide financial help for the conversion to organic agriculture, as do a few developing countries (e.g. Tunisia). This can be very important for the farm economy as the period of conversion often leads to falling yields as it takes time for full biological activity of the agro-ecosystem to be restored.
Intervention may come in a variety of forms including compensation for losses (as during conversion products cannot be sold as organic), integration of extra costs (e.g. certification) or support for infrastructure developments (e.g. for the purchase of machinery or for restructuring rural buildings). This help may be available during the conversion period, but also, in some cases, for a period after, or under the guise of a different scheme. These payments are often made as a specific sum per hectare, but may also include tax reductions or preferential conditions for credit. Direct help may be complemented by indirect financial help. This comes in the form of investment in research, rural extension and training for farmers, and organic market development (e.g. awareness campaigns). The premium prices paid by the consumer for the organic produce also form an economic incentive for the individual farmer. Help available to the farmer is, however, very country specific.

**Where can I get information about consumption and prices of organic commodities?** Although organic agriculture is still only a small industry (1-2% of global food sales), it is growing in importance worldwide. It is difficult to collect information due to lack of official statistics and the level of confidentiality of organizations dealing with organic produce. However, interest is growing for information about the nature of the organic market dynamics. This will assist in the long-term planning of what produce to supply, in what quantity and quality.

Organic foods can be found at natural food stores, health food sections and produce departments of supermarkets and at farmers’ markets, as well as through grower direct-marketing. Organic food is also gaining acceptance on a worldwide basis, with nations like Japan and Germany becoming important international organic food markets. In this century, the future of agriculture lies in obtaining healthy products, maintaining a fertile soil, optimising farm production and the environment, without ignoring the problem of food security.

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Communicating with the consumer must be a central point of an European Action Plan for organic agriculture. No consumer will be ready to pay premium prices for organic products (or taxes to support organic agriculture), if he is not informed about the benefits of organic agriculture, if he is not sure whether an organic product is really organic, and if he cannot find organic products in the market.

Key words: arguments, strategies, organic food, communication, consumers

The results of an analysis of the European markets for organic food have shown that markets in general are very small, but with extraordinarily high growth rates. Most market researchers in European countries have no doubt that consumers demand for organic food will grow rapidly in the next years. A lot of European countries support production of organic foods through subsidies for organic farmers. However, this production oriented policy can only be successful, if market structures and marketing channels are able to cope with a rapid increase of supply and if market actors adapt products, sales channels and prices to the demand of consumers. A crucial point for a lasting growth of the market and for realising the full potential of consumers demand are communication strategies of the market actors.

As long as consumers have doubts whether an offered organic product has been really produced organically, they will not be ready to pay premium prices for organic food.

As long as a consumer has these doubts, he will not pay higher prices for organic food than for other food products. This subjective problem of consumers contradicts the objective state of affairs, because the
EU-Regulation 2092/91 takes care of the right labelling of products. The problem is that many consumers in European countries do not know anything about this EU-Regulation. So, a first weak point in communication with consumers is information about the security the EU-Regulation 2092/91 provides to ensure that offered organic products are produced under the strict standards of organic agriculture.

As long as consumers have problems to identify organic products in the market because they are confused by a large number of different brand names or trademarks for organic products, the market potential for organic products will not be met.

Consumers in some European countries, e.g. in Germany and Italy, have problems to identify organic products in the market because they are confused by a large number of different brand names or trademarks for organic products. There are several possibilities to put an end to this confusion of consumers.

The simplest way would be to communicate a common EU-wide logo for organic products that can be used in addition to private trademarks. Only insiders know that we have such an EU-wide logo (see figure 1). But this logo has two main problems: First of all this logo can easily be mixed up with other EU-logos for traditional specialities, for protected geographical indication or for protected designation of origin. Secondly, the EU-logo for organic farming was never communicated to consumers in broad public relation campaigns. If a logo is not known in the public it is of no practical value.

![Logos for Food Products in the European Union](image)

Figure 1: Logos for Food Products in the European Union

As there is no well-known EU-label for organic products, market actors in European countries have developed different strategies in implementing a common label for organic products on a national level. In Europe we can distinguish between four kinds of common national logos for organic products: governmental logos (e.g. in Denmark and France), logos
of semi-governmental marketing associations (e.g. in Austria and Germany), logos of umbrella organisations for organic agriculture movements (e.g. in Belgium and Switzerland) and logos of private certification bodies for organic products (e.g. in the Netherlands and Sweden). From the EU-Commission's point of view, another serious problem of these national common logos is that their utilisation is connected with different national standards in addition to the EU-Regulation 2092/91 so that they can be used (and have been used) to hinder international trade. Apart from that, foreigners (e.g. tourists) have to know all national logos if they want to buy organic products in another country.

**As long as consumers who are interested in buying organic food cannot find the shops, where these products are offered, demand will be limited.**

In some European countries, where organic products are mainly sold by smaller and specialised shops, as e.g. farm shops, organic food shops, health food shops, etc., consumers have problems to find these shops. As most of the shops have low turnovers and profits, they do not invest in greater efforts to increase the degree of their familiarity. A solution could be to build up regional associations for advertising and public relation campaigns where to buy organic products.

**As long as consumers cannot find (a few) organic products amidst the wide range of products in conventional supermarkets, the sales potential will be limited.**

In conventional supermarkets with a small range of organic products between a wide range of conventional products and where no or only small advertising and sales promotion campaigns for organic products have been conducted consumers have problems to find organic food. There are several possibilities to make it easier for consumers to find organic products in the shops, as:

- placement of all organic products en bloc,
- placement of some organic products en bloc (e.g. fruit and vegetables or cereals),
- conspicuous labelling and signs that lead consumers to the products in the different shelves,
- displays in addition to the shelves.

Because of the requirements of space the placement of all organic products en bloc is done very seldom by conventional supermarkets.
Besides the fact that the products could be found easier by consumers this placement en bloc has several advantages. The main advantages are that price differences between conventional and organic products are not so obvious for consumers and that promotion activities as e.g. the distribution of sales folders or tastings can be adjusted better to the target group.

As long as consumers do not know which benefits they will have when buying organic food, they will not spend more money for organic food.

In several European countries, suppliers of organic food do not spend much money for promotion campaigns, either for public relations or for advertising or for sales promotion activities. While bigger food firms spend between 5% and 10% of their turnover for communication campaigns, most of the smaller organic suppliers invest much less than 1% of their turnover for communication. But there is a need for suppliers of premium products to have a communication budget appropriate to premium products. If no one knows about the benefits of products and services, no one is ready to pay premium prices.

As important as the amount of the financial budget for communication strategies are the communication arguments for organic food. A lot of organic suppliers have adjusted their communication arguments only to existing consumers of organic food and their main motives to buy organic; in most European countries the main motives are health and environmental protection. But promoting only a few arguments is risky, especially if one of the main arguments, as environmental protection, becomes less important to parts of the population. Apart from that, it will be hard to get new consumer groups buying organic products, because these consumers could have other preferences and judge food with other criteria than the regular buyers of organic food today.

Organic food has benefits concerning a lot of important characteristics for consumers, as better taste, low chemical residues, high standards of animal welfare, produced without genetically modified organisms, a high degree of naturalness, etc. This means that organic suppliers have to communicate these benefits of organic food to the consumers to get a higher value of their products in the consumer's mind. And a supplier has to translate these attributes into functional and emotional benefits for the consumers. Finally, it has to be communicated that organic food and organic agriculture represents a certain culture.
Another interesting point is the question for what kind of special product characteristics consumers are willing to pay higher prices. Another third of the population is tending to accept higher prices for these quality characteristics. The stated willingness to accept higher prices for organic products is much lower for organic products. This illustrates that a lot of consumers does not know that the standards for organic production include very high standards for animal husbandry and assuring animal welfare, because these standards have not been communicated to consumers. If organic suppliers want to get premium prices for their products, they have to point out all premium benefits for their products in powerful promotion campaigns.

There are several possibilities to convince consumers by promotion activities that organic food has premium quality. Concerning the taste, as one of the most important quality aspects of food, high level sales promotion activities for organic food are e.g. taste testing actions in the shops or the offer of a cash-back-guarantee, if a consumer is not satisfied with the taste. Such a cash-back-guarantee, as the highest level of a convincing promotion strategy, signalises consumers that the supplier must be very sure that he offers products with a premium taste.

As long as salespersons are not themselves convinced that organic products have several advantages and premium quality, they cannot convince consumers so that the sales potential will not be met.

Especially in conventional supermarkets with a high fluctuation of salespersons, organic suppliers have the problem that they have to hold a lot of training courses for salespersons to make them familiar with organic production methods. Therefore, a lot of organic suppliers argue that training courses for salespersons in supermarkets are too costly and they refrain from offering such courses. However, the worst thing that could happen to an organic supplier is that an uniformed salesperson, who is asked by a consumer why a specific organic product is so expensive, answers: "I don't know, but if you are looking for a cheaper product take this (conventional) one." Another version of an answer from a salesperson who was trained and has visited an organic farm could be: "Oh, I have seen a farm where these products come from. The cows are grazing on wide meadows with a lot of different herbs, the baby calves only get fresh and safe milk, the farmer does not use any pesticides, there is no use of any artificial additives for processing and the taste of that cheese is fantastic, it has a smell of the fresh
herbs in the meadow" and so on. Training courses for salespersons with visits of organic farms are without doubt rather expensive. But these training courses can be very efficient, because salespersons in shops are a more credible source for many consumers than professional models playing roles in advertising campaigns. Advertising campaigns are necessary to attract enough attention and interest for organic products, but if a salesperson does not contribute to sell organic food in the shops, the largest part of the money for an advertising campaign is down the drain.

Communicating with the consumer must be a central point of an European Action Plan for organic agriculture. An action plan should include:

- An information campaign about the security the EU Regulation 2092/91 and following regulations provide to consumers that offered organic products are really produced under the strict standards for organic farming methods,
- the introduction of a new EU-logo for organic products which is easily distinguishable from other logos,
- broad public relation campaigns to make the new EU-logo for organic products well-known to the majority of consumers in all EU-countries,
- communication campaigns about all the benefits of organic products and organic farming according to the production standards and results from research studies,
- financial support for organic suppliers which invest in general communication campaigns for organic products and in training courses for salespersons.

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3. *** - www.ifoam.org
In order to establish estimate prices and intervention prices of cattle carcass they use in the European Union a commercial appraisal system. This classification is made depending on conformation and fat-covering degree. This system is being implemented in Romania too.

Key words: cattle carcass, EUROP system, conformation, and fat covering

INTRODUCTION
Taking into account the European Union legislation concerning the implementation of the European Union cattle carcass classification system with a view to record prices and intervention in the beef and weaned calf meat, the Carcass Classification Commission in Romania shall develop norms for the implementation of the EUROP system (subjective appraisal of carcasses). This system asks for the use of a grating, which is considered “subjective” because it is applied on the ground of human visual examination, without the use of any instrument or apparatus.

MATERIAL AND METHOD
In the context of the classification system, we apply the following definitions:

a) Carcass: the whole body of a slaughtered animal, such as it is after bleeding, evisceration, and skinning, i.e.:
   - No head or feet; the head is detached from the atlas-occipital joint, and feet are detached from the carpal-meta-carpal and tarsal-meta-tarsal;
- No organs in the thorax and abdomen cages, with or without kidneys, renal fat, and pelvic fat;
- No genitals or related muscles, and, in females, no tits or mammal fat.

b) Demy-carcass: the product obtained by the symmetrical separation of the carcass along the cervix, dorsal, lumbar, and sacral vertebrae and through the middle of the sternum and of the ischiopubic symphysis.

In addition, in order to establish market prices, the carcass needs to be displayed together with the outer fat, with no kidneys, renal fat, or pelvis fat, with no thin or thick rib steak, with no tail, no backbone, no fat on the rear quarter side, no fat on the inner side of the upper part, no jugular and adjacent fat, the neck being cut according to veterinary requirements. Nevertheless, European Union member nations are authorised to accept different displays if this reference display is not used. Adult cattle carcasses are divided into the following categories: carcasses of non-gelded young male below 2 years, carcasses of other non-gelded males, carcasses of gelded males, carcasses of parturient females, and carcasses of other females.

Adult cattle carcasses are classified depending on: conformation and fat covering.

a) Conformation.

Carcass types depending on essential anatomical areas (leg, back, shoulder blade)

<table>
<thead>
<tr>
<th>Conformation class</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>E excellent</strong></td>
<td>All profiles are convex to super-convex; exceptional muscle development</td>
</tr>
<tr>
<td><strong>U very good</strong></td>
<td>Convex profiles; very good muscle development</td>
</tr>
<tr>
<td><strong>R good</strong></td>
<td>Neat profiles; good muscle development</td>
</tr>
<tr>
<td><strong>O satisfying</strong></td>
<td>Neat to concave profiles; medium muscle development</td>
</tr>
<tr>
<td><strong>P poor</strong></td>
<td>All profiles are concave to very concave; poor muscle development</td>
</tr>
</tbody>
</table>
The classification procedure shall be according to the following methodology:

1. Carcasses or demi-carcasses are classified immediately after slaughtering, and this classification should be done at the slaughterhouse.

2. Classified carcasses or demi-carcasses are identified.

3. Before identification by marking, slaughterhouses of member nations are authorised to remove carcass or demi-carcass outer fat if fat covering justifies doing so.

Experts acknowledged by the Commission for Carcass Classification shall do examination on the spot. These experts, called classifiers, should report the results of the inspection. If the case, the Commission shall take all the measures to ensure a uniform classification.

b) Fat covering

Fat amount outside the carcass and in the thorax cage

<table>
<thead>
<tr>
<th>Fat covering class</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 low</td>
<td>Not at all to low fat covering</td>
</tr>
<tr>
<td>2 thin</td>
<td>Slight fat covering, visible meat on almost all the area</td>
</tr>
<tr>
<td>3 medium</td>
<td>Except for the legs and shoulder blades, meat covered almost everywhere by fat, small fat deposits in the thorax cage</td>
</tr>
<tr>
<td>4 high</td>
<td>Meat covered by fat, but still partially visible on the legs and shoulder blades, visible fat deposits in the thorax cage</td>
</tr>
<tr>
<td>5 very high</td>
<td>The whole carcass is covered by fat; very big fat deposits in the thorax cage</td>
</tr>
</tbody>
</table>

RESULTS AND DISCUSSIONS

Implementation proper of carcass classification results in a series of practical problems in the new European Union member nations. In order to eliminate them, the Carcass Classification Commission sends the Council a report concerning the problems from the introduction of the European Union standard.
### a) Conformation

Development of carcass types in essential anatomical areas  
(leg, back, shoulder blade)

<table>
<thead>
<tr>
<th>CONFORMATION CLASS</th>
<th>ADDITIONAL STIPULATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>E EXCELLENT</td>
<td>LEG: VERY ROUNDED</td>
</tr>
<tr>
<td></td>
<td>BACK: BROAD AND VERY</td>
</tr>
<tr>
<td></td>
<td>THICK UP TO THE SHOULDER</td>
</tr>
<tr>
<td></td>
<td>SHOULDER BLADE: VERY</td>
</tr>
<tr>
<td></td>
<td>ROUNDED</td>
</tr>
<tr>
<td></td>
<td>UPPER PART GOES WELL</td>
</tr>
<tr>
<td></td>
<td>BEYOND SYMPHYSIS</td>
</tr>
<tr>
<td></td>
<td>VERY ROUNDED CROUP</td>
</tr>
<tr>
<td>U VERY GOOD</td>
<td>LEG: VERY ROUNDED</td>
</tr>
<tr>
<td></td>
<td>BACK: BROAD AND VERY</td>
</tr>
<tr>
<td></td>
<td>THICK UP TO THE SHOULDER</td>
</tr>
<tr>
<td></td>
<td>SHOULDER BLADE: VERY</td>
</tr>
<tr>
<td></td>
<td>ROUNDED</td>
</tr>
<tr>
<td></td>
<td>UPPER PART GOES WELL</td>
</tr>
<tr>
<td></td>
<td>BEYOND SYMPHYSIS</td>
</tr>
<tr>
<td></td>
<td>(SYMPHYSIS PELVIS)</td>
</tr>
<tr>
<td></td>
<td>VERY ROUNDED CROUP</td>
</tr>
<tr>
<td>R GOOD</td>
<td>LEG: VERY ROUNDED</td>
</tr>
<tr>
<td></td>
<td>BACK: BROAD AND VERY</td>
</tr>
<tr>
<td></td>
<td>THICK UP TO THE SHOULDER</td>
</tr>
<tr>
<td></td>
<td>SHOULDER BLADE: VERY</td>
</tr>
<tr>
<td></td>
<td>ROUNDED</td>
</tr>
<tr>
<td></td>
<td>UPPER PART AND CROUP</td>
</tr>
<tr>
<td></td>
<td>ARE SLIGHTLY ROUNDED</td>
</tr>
<tr>
<td>O SATISFYING</td>
<td>LEG: VERY ROUNDED</td>
</tr>
<tr>
<td></td>
<td>BACK: BROAD AND VERY</td>
</tr>
<tr>
<td></td>
<td>THICK UP TO THE SHOULDER</td>
</tr>
<tr>
<td></td>
<td>SHOULDER BLADE: VERY</td>
</tr>
<tr>
<td></td>
<td>ROUNDED</td>
</tr>
<tr>
<td></td>
<td>CROUP: STRAIGHT PROFILE</td>
</tr>
<tr>
<td>P POOR</td>
<td>LEG: VERY ROUNDED</td>
</tr>
<tr>
<td></td>
<td>BACK: BROAD AND VERY</td>
</tr>
<tr>
<td></td>
<td>THICK UP TO THE SHOULDER</td>
</tr>
<tr>
<td></td>
<td>SHOULDER BLADE: VERY</td>
</tr>
<tr>
<td></td>
<td>ROUNDED</td>
</tr>
</tbody>
</table>

The Council, upon the Commission’s proposition, decides, on the ground of this report, on the time of establishing market prices and of implementation of intervention measures according to the European Union standards.

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Until implementation aiming at establishing market prices they
develop parallel tables, first of all according to national and European Union
stipulations applicable at the time and, second, on the ground of
administrative methods that are developed progressively, according to the
implementation regulations.

As even in European Union nations in which they have the cattle
carcass classification system there are problems resulted mainly from the
subjectivism of the method, they introduced additional elements. These
elements concern both aspects, i.e. conformation and fat covering.

b) Fat covering
Fat amount outside the carcass and in the thorax cage

<table>
<thead>
<tr>
<th>Fat covering class</th>
<th>Additional stipulations</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 low</td>
<td>No fat in the thorax cage.</td>
</tr>
<tr>
<td>2 thin</td>
<td>Clearly visible intercostal muscle in the thorax cage.</td>
</tr>
<tr>
<td>3 medium</td>
<td>Pretty visible intercostals muscle in the thorax cage.</td>
</tr>
<tr>
<td>4 high</td>
<td>Fat stripes on the leg are prominent. In the thorax cage,</td>
</tr>
<tr>
<td></td>
<td>intercostal muscles can be infiltrated by fat.</td>
</tr>
<tr>
<td>5 very high</td>
<td>The leg is almost totally covered by fat, so that fat</td>
</tr>
<tr>
<td></td>
<td>stripes are no longer clearly visible. In the thorax cage,</td>
</tr>
<tr>
<td></td>
<td>intercostal muscles are infiltrated by fat.</td>
</tr>
</tbody>
</table>

CONCLUSIONS

From the point of view of accessing the European Union, adopting
all measures regulating beef market in particular and meat market in
general, no matter the species, are first rank priorities for the national
specialised commissions.

This raises problems for institutions responsible for implementing
these measures, but the experience of states in which the carcass
classification system is already functional, their know-how will make it
easier to implement the system.
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INFLUENCE OF PORK ACIDITY ON QUALITY MANAGEMENT STRATEGY IN PRODUCING AND PROCESSING PORK

INFLUENȚA ACIDITĂȚII CĂRNII DE PORC ASUPRA STRATEGIEI DE MANAGEMENT AL CALITĂȚII ÎN PRODUCEREA ȘI PROCESAREA CĂRNII DE PORC

IOANA BĂLAN *

Economic efficiency of producing and industrialising meat is more and more linked to quality management strategy. Of the many factors that influence management decisions in the field of quality in pork producing and processing there are factors related to intrinsic quality of muscle tissue. These factors influence not only decisions that concern processing. They have a determining character in all stages, from processing to marketing.

Key words: pH, zootechnic and technological factors, and pork quality

INTRODUCTION

Meat intrinsic quality is assessed depending on organoleptic, microbiological, and physical and chemical features. Though meeting all meat parameters to ensure food safety is extremely important, in the case of pH, which represents the level of acidity, it also determines decisions concerning meat destination, i.e. its scope. Thus, in European Union slaughterhouses, they assess, within quality control of finite produce, the final pH for each carcass. Depending on the result of the assessment, carcasses are sent to the butcher’s or to supermarkets, to be carved and marketed under the form of refrigerated meat, to fridge-warehouses to be stored under frozen form, or to processing units to produce fresh products, specialities, semi-duration meat products (cooked-smoked), or long-duration ones (raw-dried).

* Banat’s University of Agricultural Sciences and Veterinary Medicine Timisoara, Faculty of Agricultural Management
These years, in European Union nations, due to the particular importance in developing competitive products both quantitatively and qualitatively, pH contributes to the setting of sale price of pork carcass. Thus, beside the EUROP scale (or SEUROP, in Austria, Denmark, etc.), which establishes price depending on muscle tissue in the carcass, there is also a bonus and penalty system depending on the final pH, measured after reaching refrigeration temperature. This is really justified if we take into account the fact that meat acidity influences both quality aspects of finite products and economic aspects in the field.

As for finite product quality, final pH has several impacts:

a) **Organoleptically**, pH is closely related to aspect, smell, tenderness, taste, savoury, and colour. Acid meat (pH ≤ 5) has a flaccid aspect, sour smell and taste, pale colour, and low succulence, and meat whose pH is alkaline (pH > 6.2) is dark coloured, tasteless, and has low aroma.

b) **Nutritiously**, pH influences protein, amino acid, fat acid, vitamin, and mineral state and quality. Thus, in the case of myopathies (PSE, DFD) variation above and below normal limits of acidity generate major chemical changes, with pathological character for muscle tissue.

c) **Hygienically and veterinary-sanitarily**, acidity is determining in salubrity, if product validity is observed. Pork and pork food from pork whose pH < 5.6 and those close to alkaline values (pH > 6.2) have low preservability and, according to present food safety standards, they are improper for human consumption.

**Economically**, pH influences through technological factors. These factors are represented by:

a) **Water holding capacity**, which in case of high meat acidity generates considerable technological losses during storage, which results in economic losses.
b) Meat hydrating capacity, which also is low in the case of pH deviations, is manifest through low yields in the processing, particularly in meat products, in specialities, and in demi-duration ones.

MATERIAL AND METHOD

The determining factors in developing optimal values of acidity have been the topic of long debates. Lately, several European Union nations have given up some concepts concerning zootechnological and technological determinism of pH, and have adopted new ones, from the same domain. Yet, their contribution to a smaller or to a larger extent is extremely controversial according to the specialists of some meat research institutes in the European Union.

Technological measurements carried out at the S.C. Comtim Group S.R.L. in Timișoara (District of Timiș) allow us to conclude that the existence of factors influencing acidity in almost all the sectors, starting with zootechnic ones (genetics, microclimate, loading-unloading, transportation) and ending with technological ones (rest, slaughtering technologies, and storage).

RESULTS AND DISCUSSIONS

Among zootechnic factors having an impact on meat acidity are:
genetic factor, microclimate factor- temperature.

a). Genetic factor

The main factor in the hog-raising sector that of performing synthetic genetic lines was genetic predisposition to stress. The presence of a gene that generated this deficiency, followed by extremely low final pH values, has been long studied and, finally, eliminated. Thus, the genetic factor of stress that determines cholic behaviour in swine from these synthetic lines has now become just a mention meant to point out the quality of synthetic lines.

After studying two lots of hogs with the same average weight upon slaughter (91.5 kg) – the 1st lot with 101 commercial traditional hogs (♂Duroc x ♀F1) and the 2nd lot with 102 PIC commercial “stress-free” hogs
(♂PIC x ♀F1) produced in the same feeding and microclimate conditions – we could see a higher standard-deviation in the lot from terminal PIC boars, compared to the one from the terminal Duroc boars. The PIC line studied of a synthetic line of the most worldwide performing ones (Table 1).

Table 1. Variation of pH depending on genetic factor

<table>
<thead>
<tr>
<th>Commercial hybrid</th>
<th>Final pH variation limits</th>
<th>PH value (average)</th>
<th>Standard deviation (%)</th>
<th>Muscle tissue (%) (average)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lot 1 ♂Duroc x ♀F1</td>
<td>5,31-6,28</td>
<td>5,82</td>
<td>3,96</td>
<td>50,3</td>
</tr>
<tr>
<td>Lot 2 ♂PIC „liber de stres”x ♀F1</td>
<td>5,10-5,78</td>
<td>5,68</td>
<td>4,23</td>
<td>54,4</td>
</tr>
</tbody>
</table>

As we can see, carcass percentage that did not range between 5.6-6.2 (pH values) is, in the traditional commercial hybrid 3.96, and in the PIC commercial hybrid, 4.23. This phenomenon can be explained by the fact that the 1st lot presents an average percentage of lower muscle tissue (50.3%), which implies a higher fat intra-muscular (GIM) percentage and a lower glycogen – lactic acid decomposition ability. On the contrary, in the 2nd lot there is a medium percentage of higher muscle tissue (54.4%) implicitly correlated with a lower pH value, i.e. a higher acidity.

In this context, the decision of pork producers to produce higher percentage muscle tissue hogs with great advantages in marketing, but with a pH at the bottom limit of admissibility or to produce a less economic carcass (less muscle tissue) but superior from the point if view of acidity. This has also led to the adoption of some corrective measures by responsible organisms in the swine-raising sector in some European Union nations. These measures stipulate the maintenance of the EUROP scale in the detriment of the SEUROP scale, which includes the S class (Super) for carcasses above 60% muscle tissue, bonuses for optimal pH carcasses, and penalties for deviation cases.

b). Microclimate factor – temperature

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Due to the tendency of the animal metabolism to lay adipose tissue in low temperature conditions to protect the organism with energy deposits, intra-muscular fat increases resulting in a higher percentage of muscle tissue. Thus, microclimate factors (lower temperature in sheds) result in a lower capacity of the muscle volume of developing acid compounds. Similarly, the variation of temperature between seasons induces oscillations of meat acidity.

To support this hypothesis we made measurements on two lots approximately identical, with the same average weight upon slaughtering (91 kg), obtained in the same zootechnic conditions (transportation, slaughtering, and storage), but in different periods of the year. The 1st lot (50+ heads of ♂ Marele Alb x ♀ Landrace) was tested in February, the coldest period of the year, and the 2nd lot (51 heads of ♂ Marele Alb x ♀ Landrace) was tested in August, the hot period of the year (Table 2).

We can see that the 1st lot produced in low temperature yielded optimal values of the pH (no carcass beyond standards) but with 1.2% less muscle tissue because of big adipose tissue deposits. The 2nd lot has average values of the pH (at the limit of the standard) with deviations of 3.92% and a better muscle tissue percentage.

### Table 2. Variation of pH depending on temperature

<table>
<thead>
<tr>
<th>Hybrid</th>
<th>Final pH variation limits</th>
<th>PH value (average)</th>
<th>Standard deviation (%)</th>
<th>Muscle tissue (%) (average)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lot 1 ♂ Marele Alb x ♀ Landrace</td>
<td>5,61-6,04</td>
<td>5,73</td>
<td>0</td>
<td>48,7</td>
</tr>
<tr>
<td>Lot 2 ♂ Marele Alb x ♀ Landrace</td>
<td>5,11-5,78</td>
<td>5,62</td>
<td>3,92</td>
<td>49,9</td>
</tr>
</tbody>
</table>

Technological factors influencing meat acidity are extremely numerous. We can say that there is no stage of the technological process that does not influence, more or less negatively (if technological times are not observed) meat final pH.

Among them there are certain stages, which if not eliminated or modified, do not observe veterinary sanitary legislation. For example,
showering hogs before slaughtering is one of the compulsory stages of the technological processes. However, this stage generates discomfort, i.e. stress. This state, in its turn, is one of the main factors resulting in a decrease of the pH and in high-acidity carcasses. On the other hand, leading hogs with hog-sticks is prohibited according to the latest regulations for reasons of animal protection. But giving up its use and appealing to other specific means results in disorienting hogs during transportation to technological areas, stressing the whole lot, and implicitly in increasing muscle acidity.

Among most influential technological factors on optimal pH limits we remind:

- Treatment during loading, shipping, and unloading;
- Kicking method;
- Electric current intensity used and slaughtering time;
- Period of time between kicking and stabbing;
- Position during bleeding;
- The interval between stabbing and eviscerating and the cooling speed;
- Storing.

![Graph showing pH levels](image)
Figure 1. Variation of pH depending on the time after stabbing

Legend.
DFD – dark coloured, firm, dry
PSE – pale, soft, exudative

The figure above shows the evolution of pH in pork with low acidity (in the case of DFD myopathy) and in pork with high acidity (in the case of PSE myopathy), as well as optimal evolution in soft meat.

CONCLUSIONS

Acidity is, together with other features, one of the factors influencing pork and pork product quality as such, and profitability. It determines the adoption of certain managerial decisions of zootechnic and technological nature particularly in the field of quality management. These decisions should aim at:
- acquiring certain hog genetic lines;
- adopting optimal microclimate systems;
- using nutrition networks with positive influence on meat acidity;
- implementing protecting technologies in the field of live hog manipulation;
- equipping with performing equipment for the slaughterhouse technological processes in order to ensure conditions and optimal technological times of the production flow;
- introducing rapid refrigeration and storage technologies for frozen meat below the lower limit of the legal interval.

All these measures imply the raising of production costs by increasing expense level but, taking into account quality, the trend among managers of hog raising establishments shall be to adopt them with a view to implement European Union quality systems.

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Due to the great impact that television has on Romanian public, it represents the main mean of advertising agroalimentary foodstuff. Unfortunately, Internet still did not succeeded to impose probably because its high costs and because its consumers are not interested in this field.

Key words: communication, marketing, advertising, agroalimentary foodstuff.

Advertising agroalimentary foodstuff always represented an interesting field on the verge of being explored more and more and a field that finds itself in a continuous change and evolution.

Consulting many authors in this field, all of them more or less gave almost same meanings and connotations to different definitions regarding advertising. In fact, advertising is an art that makes people buy products.

The point that I am interested in is to try to systematize advertising classification systems as they appear in books from this domain, as much as possible, following all forms and means of advertising.

Following ten classification criteria proposed by marketing specialists, it is very interesting to remark the existence of different points of view regarding classification criteria in agroalimentary foodstuff advertising. Thus, I concentrated on four, in my opinion, representative authors in the field of agroalimentary foodstuff advertising, namely: Chiran & Gîndu, Lagrange et al., Manole et al., and Diaconescu.
Criteria that I have concentrated upon are: by type of advertising, object / goals, covered area, nature of the market, type of advertised message, anticipated effect, financial system, ways of influencing consumption demand, place where consumers gain information and economic practice.

In table 1 I have tried to point out different approaches of each and every author, especially following criteria which they dealt with or not. That is why I have used minus when they did not deal with a criterion and I used plus when they did.

<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>Type of advertising</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>+</td>
</tr>
<tr>
<td>Object / goals</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Covered area</td>
<td>+</td>
<td>-</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>Nature of the market</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Type of advertised message</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Anticipated effect</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Financial system</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Ways of influencing consumption demand</td>
<td>+</td>
<td>-</td>
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<td>-</td>
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<tr>
<td>Place where consumers gain information</td>
<td>-</td>
<td>+</td>
<td>-</td>
<td>+</td>
</tr>
<tr>
<td>Economic practice</td>
<td>-</td>
<td>-</td>
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</table>

Table 1.

By the type of advertising both Chiran & Gîndu and Manole et al., distinguish direct advertising and indirect advertising. By the object / goal, all four authors distinguish advertising concentrated on product, brand and institution or firm.
By the covered area, Chiran & Gîndu and Diaconescu take into consideration local, regional, national and international advertising. By the nature of the market, Chiran & Gîndu focus on ads destined to the final consumer, industrials and different categories of sale agents.

Regarding type of advertised messages, only Chiran & Gîndu are preoccupied by this criterion. Going on with anticipated effect and with financial system, again Chiran & Gîndu deal with it.

As far as ways of influencing consumption demand are concerned, Chiran & Gîndu are the only ones that talk about it. Lagrange et al., Manole et al., dealt next criterion distinguishing very many types of advertising both inside and outside a magazine.

It is very clear that there is considerable difference between the ways of classification concerning the four authors of marketing. From ten criteria, eight criteria are dealt by Chiran & Gîndu, four criteria are dealt by Manole et al., and only two criteria are dealt by the others, respectively Lagrange et al., and Diaconescu.

The second criterion regarding object/goal of advertising appears to be the most important, because all four authors dealt with it.

We are not allowed to forget that all the means of advertising represent both advantages and disadvantages, especially if we have in mind the idea that its propaganda supposes a message, a code, a channel, a noise and a cost.

The most important topic here would be the access of Romanian public to these means of advertising. It seems that:

1. Due to the impact that television has over the Romanian public – consumer of mass media and consumer of agroalimentary foodstuff – television is considered to be the main mean in promoting and advertising agroalimentary foodstuff;

2. At the other end, there is Internet, which still did not succeeded to impose in this field of advertising agroalimentary foodstuff to the Romanian public either because of its high costs of connecting and navigating or because the young segment of Internet consumers is not interested in this particular domain.

3. The all means of advertising agroalimentary foodstuff, can be situated in the following manner:
   - Television
   - Banners

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- Radio
- Newspaper
- Brochure
- Yellow pages
- Internet.

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LISTENING – AN IMPORTANT ELEMENT IN THE PROCESS OF COMMUNICATION

ASCULTAREA – UN ELEMENT IMPORTANT ÎN PROCESUL DE COMUNICARE

IASMINA PAUNCHICI

Many communication problems appear in an organization and not only, because these problems imply the process of listening. Listening is one of the most important elements in the process of communication because it is a process of absorbing words and selecting meanings.

Key words: communication, listening, process, obstacles, and skills.

As I already stated listening is one of the most important elements in the process of communication because it is a process of absorbing words and selecting meanings. Listening is a skill and it can be improved. We must not forget that listening is a two-way procedure.

Listening beside speaking, reading and writing, is a component of the process of communication. Why is the ability of listening important? What is in fact a process of listening? What can we possibly learn about listening? How can we listen efficiently?

Listening is fundamental in the process of communication. Dinu sustains that from a total sequence of communication, 53% is listening, 17% is reading, 16% is speaking and 14% is writing. Taking into consideration certain statistics, top managers spend approximately 45% listening, 30% speaking, 16% reading and 9% writing. Thus, approximately 60% from misunderstandings that happen are due to incompetent listening. Anyway, this is a very good reason for us to pay much more attention to the person that has something to tell us in order to avoid all the unpleasant situations that can appear in solving a problem.

Listening is a conscious act of receiving information. Rudolph Verderber sustains that listening is a six-step process, namely:

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1. Listening
2. Comprehending
3. Interpreting
4. Evaluating
5. Memorizing
6. Answering.

When speaking with someone, first of all we have to make abstract of different noises that could distract our attention from listening to the interlocutor. The second most important thing is the permanent eye contact. Then try to focus only on your interlocutor's words without playing with something or even scratching. Never stop your partner in the middle of an idea because he may lose it or even worse you may misunderstand it. Do not think on your final answer while the other is speaking, only when he finished the idea you may answer it.

Some of the factors that affect our capacity of listening and which should be carefully analyzed are: the ability of listening, the transmitter's ability of passing on the message, the ability of hearing and seeing, the concentration capacity, the motivation of listening, the goal of the communication, the level of difficulty, and the message complexity.

Comprehending means understanding the message exactly as it is transmitted without giving it any connotations. There can be several reasons for not understanding properly the message, namely, either you are too tired or your vocabulary needs improvement.

Interpreting message means giving the right meaning through empathy and non-verbal communication. This means that while we are listening to someone we should also pay attention to its emotional state of mind, to the voice, to its moves and to its gestures. Answering in the same way means that we were paying attention to our interlocutor and that we understood both him and his state of mind.

As far as evaluating is concerned, this is a stage in which we should analyze all said details in order to grasp correctly the transmitted message. Some researchers call this stage critical listening.

We have to make difference between facts and conclusion. A fact represents a stated issue that can be verified till a conclusion represents the bottom line of a stated issue belonging to an individual.

Memorizing is not always easy. Sometimes we forget immediately what we hear, sometimes the information lasts a little bit longer, and
sometimes we remember for the rest of our lives. Our memory can be trained using techniques like repeating, recognizing an idea, writing down and reading it.

The answer is the last step but not the least important. In fact, the answer is the feedback that we offer our interlocutor which represents all what we feel, all what we understood and all what we want.

Watson Hill sustains that there are three types of listening, namely: pseudo listening, listening and active listening. The most important is active listening. Active listening means much more than just listening.

It means to focus on the transmitter of the message, it means to find appropriate position of the body, place and distance from the interlocutor, to remain silent and calm, to ignore our feelings, to show empathy, to show discreetly that we are paying attention to him, to stimulate our interlocutor and to control ourselves.

Also, Hill underlines the most important functions of the communication, as follows:
- Comprehension control
- Encouraging communication
- Feedback.

Techniques used in active listening are: rephrasing transmitter’s words in order to show him that we understood, asking questions in order to check if we understood and expressing comprehension of the real state of mind of our interlocutor.

Obstacles or causes of insufficient listening can be found easily: egocentrism, information overloading, worries, fast thinking, distortion, noises, lack of trust, mentality, anticipating interlocutor’s words or ideas, unjustified and repetitive interruption of the interlocutor, loosing eye contact, non adequate non verbal communication, miming attention, neglecting interlocutor’s state of mind and so on.

Anyway, in order to avoid misunderstandings we should always be prepared to listen efficiently and not just for the sake of listening.

An important aspect of listening is to be interested in interlocutor’s ideas, be open-minded, follow the main ideas of the speech, listen critically and carefully and if necessary take notes, help your interlocutor by being interested, do not interrupt, if you do not understand ask relevant questions, summarize ideas and do not forget to offer feedback.
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Successful brands often hide negative aspects less known to the consumers. These negative aspects regard: children exploitation, slavery, animal torture and environment destruction. Among global brands with such issues we recognize: Coca-Cola, Nestlé, Kraft, McDonald's, Del Monte, Dole, Chiquita etc.

Key words: Successful brand, negative aspects, food, consumer, accusations

A successful brand must have a number of characteristics: reliability, fame, distinctive image, originality, consumer-friendliness, constancy, competitive price, hi-technology, quality, lastingness, performance, resistance, durable reputation, belonging to a certain class, positioning etc.

The present paper deals with successful global brands that occupy leading positions in the international classifications and are operational at a global level.

In the recent classifications (2003, 2004), the first positions belong to American brands, followed by brands from Japan, Germany, Great Britain, France, Italy, the Netherlands, Sweden, Switzerland, Finland, South Korea etc. The best-represented fields are foodstuffs and food services (from coffee and chocolate to alcoholic drinks and from chain stores to fast foods). Next come information technology, car industry, pharmaceuticals and cosmetics, banks and financial services.

According to the data published by Business Week in 2003, the first ten strongest brands are eight American companies and two European ones: Coca-Cola, Microsoft, IBM, General Electric, Intel, Nokia, Disney, McDonald’s, Marlboro, Mercedes. In the food industry, among the successful global brands are Coca-Cola, McDonald’s, Chiquita, Del Monte, Dole, Kraft, Monsanto, Nestlé, brands belonging to Unilever Group (Calvé, etc.)

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Knorr, Lipton, Rama etc.), brands of Procter&Gamble (Pringles, Wick),
Pizza Hut, Starbucks coffee shops, KFC, Kellog’s, Heinz, Budweiser,
Danone etc.

Business Week and Interbrand set a large number of criteria that a
brand must meet to be among the strongest brands in the world. These are
the following: a brand must be worth at least one billion dollars, at least one
third of the returns must come from outside its origin country, to make
market and financial data public etc.

Although many successful brands classify among the best 100 ones,
serious problems that are very little known lie behind their success. I shall
refer mainly to foodstuffs and food services.

The most serious accusations that the major concerns are charged
with regard children exploitation, slavery, animal torture and environment
destruction.

The sweets market is represented by chocolate products that are
made especially in the USA and Europe. The raw material for them is
processed cocoa imported from West Africa, the Ivory Coast, Ghana,
Cameroon and Nigeria.

The dominating concerns are Nestlé (Switzerland), Mars (USA),
Kraft (USA), Ferrero (Italy). They force the prices and thus determine very
low incomes for the small farmers in the mentioned countries. The decline
in prices forces the farmers to produce at the lowest prices possible. They
use slave children as labour force as they do not involve any costs but a
small amount of food.

Three major companies represent fruits: Chiquita, Dole and Del
Monte. They produce, purchase and process 65-70% of the world banana
exported quantities. However, these companies had to face serious problems
because they used a toxic chemical (DBCP) that is forbidden in the USA but
allowed in Latin America. The workers on the Latin American plantations
demanded recovery of damages from the mentioned companies after
underground warehouses with DBCP recipients had been discovered in
Honduras. The names of the companies are also associated with violence
committed against the workers on the banana plantations.

Because of the monocultural production, Latin America uses many
fertilisers that are forbidden in the producing countries as they cause
intoxication.
Another negative aspect is the use of children between 8 and 13 who receive only 60% of the minimum salary stipulated by law.

McDonald’s is the major beef purchaser in the world. The beef comes mostly from South America, where huge forest areas were deforested in order to obtain larger pastures for the herds of the American company. McDonald’s is a brand compared with a children-fattening factory because of their products Big Mac and French-fries.

In 2000, BSE (the mad cow disease) caused a short-period serious decline in beef marketing in Europe. This affected the world leader McDonald’s, whose shares decreased with 22% in three months - January-April 2001.

Coca-Cola uses processed fruit concentrates from Brazil (for Cappy, Minute Maid), where the workers on the plantations earn one third less than the minimum local salary. The company has also been accused of Afro-American workers discrimination and the pollution with extremely toxic chemicals of large arable land areas is South-West India in 2003.

Following major protest from the consumers, McDonald’s also had to declare that the company would never use genetically modified fodder for the chicken sold as “Chicken McNuggets” and “McChicken”.

Monsanto is the traditional American chemical concern that produces genetically modified food and delivers growth hormones for animals on the market. Such hormones involve high risks for human health. Monsanto is also partly responsible of the fact that the USA sued Europe at the arbitrary court of OMC to make it accept genetically modified food products.

A solution that may eliminate these negative aspects that affect the successful food brands is the future use of biological agriculture, proper animal growth and the biological processing of their meat, the opening of bio-stores on a larger scale and the apparition of successful “bio-brands”. In addition, the pressure that the consumers will put on the companies will make them apply fair trade practices.
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The transition from the individualistic management to participative management is the result of a wide range of causes. Motivation is directly linked with participation that in turn involves a strong motivation of the individual.

**Key words**: motivation, participation, management, competitive

In psychological terms, *participation* means an individual’s involvement in a certain action.

The transition from the individualistic management to participative management is the result of a wide range of causes: an increased complexity of company activities and its integrated resource value; increased diversity and dynamic evolution of the environment, generated mostly by an accelerated pace in renewing products, technologies and services; a higher level of labour force and speciality training that has become more and more a determining resource of economic units development; a set of managerial methods and procedures based on the stockholders’ vision and with a strong team or participative character.

At present, there is a constant interest in management participation in the USA. Studies have clearly revealed the efficiency of participation, although several failures have also been pointed out. It has been shown that a series of individual or organisational contingencies can influence the success of participation either positively or negatively.

Participation in management has spread quickly in other countries as well. In Germany there are laws that stipulate the degree of employee participation. A law passed in 1976 resulted in the fact that most West German companies had to cede half of the votes of the Managing Board to

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their workers’ representatives. For instance, Volkswagen has 20 members in the Managing Board, of which 5 are blue-collar workers, 2 are white-collar workers, 3 are union trade representatives and 10 represent the company management. As the whole world was surprised at the success of the Japanese management style, I think it timely to sum up the characteristics of this style that goes under the concept of groupism.

The Japanese group orientation is a major characteristic of the relationship between self and others and its position in the world. It is said that man is a social animal. In our desire to start relationships with ourselves and the others, we become part of a group. The Japanese individual is not different from his American or European homologue.

However, the individual-group relation implies a significant difference between how a Japanese individual copes with the tension between him and the group he is part of in comparison with his Western counterpart. The American and the Europeans try to minimize the tension by restricting their relation with the group both functionally and in time. They also try to make sure they are free to leave the group, which is a tendency to avoid strong involvement in a certain group. This is accomplished by participating in several groups. As Vance Packard showed in “The Pyramid Climbers”, the corporation executives find themselves deeply involved in the company and experience frequent painful reactions under certain circumstances. Unlike them, the Japanese copes with the tension between him as an individual and the group by making a distinction between tatemae (the official attitude) and honne (the real intentions). So the tension is absorbed into an individual psychology. Consequently, the Japanese are free to face it in any realistic sense, as it is required or claimed by the Westerners.

While a relation of a Westerner with the group can be characterised or even properly called “participation”, the relation of a Japanese is far more precise thanks to the concept of “affiliation”. In this case, “affiliation” means that we identify ourselves in society (or in a certain world) as members of a certain group. This practice of identification is clearly illustrated in the way of introducing himself to a foreigner.

As far as the matter of introduction is concerned, an American or a European, an Arabian or an Indian will first say his family name and then will add the necessary explanations about it.
In the Japanese society, where an individual is identified according to his rank affiliation, the question whether he is an “uchi” (an insider) or a “soto” (an outsider) plays an important role in his evaluation. Affiliation brings about the aspect of the unique Japanese mentality of being very interested in the problems of the group and rather indifferent to the people outside it.

The larger the company, the more the situation changes. A huge company will absorb the main part of the familiarity relationships between its members. Most of them come in daily contact with their colleagues and share the experience of going to a party and travelling together. Consequently, the familiarity relationships are interested in the human relations within the group that in this case is a company. Living in such an environment for several years, the occupation group becomes a “microcosm” that defines their conscience and interests.

Motivation is defined as a process that encourages people to improve their efficiency as a result of the psychical satisfaction generated by increased personal efforts. Thus the performance is the result of the product of abilities, motivation and the role an individual plays in an organisation: 

\[ P = A \times M \times R. \]

The quality of management is directly proportional to the capacity to create a unity between proper work motivation and the economic or social unity. In this situation, motivation is directly linked with participation that in turn involves a string motivation of the individual; it is the matter of “feeling all right at work”, a multidimensional, indispensable act with a special signification in understanding and examining the role motivation plays in generating the participative behaviour.

The individual’s participation in management is inconceivable without the implication of his psychological, rational, cognitive, affective and volitive features, that is without his motivational features. Passing from knowledge to action requires the motivational system of the people or the social groups; in other words, motivation reports to action seen as a transforming factor at the conscience level and pursues results at the behavioural level. As a complex phenomenon, motivation is determined by a number of social, economic, gnoseological, psychological and axiological factors. It is interesting to study the motives of the human individual’s participation based on gnoseological motivation, which in turn favours increased competitiveness in the process of participation.
The degrees of participation vary according to personal motives; the methods are different because of the social norms and their coercive character; participation offers the individual an additional earning source, a direct advantage which is more important than choosing a different attitude or variant of acting; he feels united with the group he belongs to and works for the it, as it is his strong wish to achieve its objectives.

The motivation-behaviour relation is not one of perfect equivalence. The same motivation may lead to different behaviours, as the same behaviour may have different motivations; hence the conclusion that the practical activity there are other motivations of participation than those already mentioned; they can act not only by themselves, but also together or they can interfere in many ways. An important aspect of the participative behaviour is its multiple character: the interest and the effort are distributed among several systems with typical laws and the participation in a given system of activity may have either negative or positive consequences on participating in other systems. Hence the practical importance of the participative behaviour for society as a whole and each system separately.

A number of practical and theoretical conclusions can be drawn: various functions and roles man plays, i.e., a plurality of motivation-sustained activities are specified: man - integrated in various social structures - participates at different degrees and in different ways, depending on the parameters of the general participation framework; it occupies an important place among the factors that stimulate and favour man’s participation.

The interest is the conscious tendency towards an objective or objectives to be achieved; generally, the interest is based on the individual’s determination to achieve his objective in order to satisfy the material or spiritual needs of his own or the group he belongs to. Man becomes aware of his needs through his interest; he acts to satisfy them under certain social and historical circumstances; the interest is the conscious image of need; through conscience, man can realise not only their own interests, but also their fellow creatures’ interests. Thus, a common conscience of human and social interests is revealed.

When interest is involved, the individual reports to the group he belongs to actively, depending on his options; the group interest lies between the individual and the general interest. The three of them are closely linked together. Interactions occur between the individual
motivation and the one that results when one becomes aware of the social and group interests. Unlike the participative behaviour, the interest has conditioned, not determinative links. The former has many manifestation forms, such as formal, functional and creative participation. Formal participation means man’s mere presence within the democratic structures; functional participation occurs when the participants deal with problems they are called to decide upon, establish the means and aims of the social action, express their critical and self-critical opinions and motivate their decisions; creative participation occurs when the participants in different stages of the decision-making process bring forth their innovative proposals on solving a problem.

The above discussion reveals several specific aspects: the motivational mechanism is developed and operated through the unconditioned participation in the process of assimilating values and participative behavioural types. Applying one’s own experience operates the mechanisms that operate the motives for participation. As far as management participation is concerned, the connection between the axiological and gnoseological motivation is reflected in the responsible participation with positive consequences both at the collective and the individual level. This involved other aspects as well, such as the necessity and the desire to participate, the need to distinguish oneself, interest and initiative. These are elements one assimilates during the learning process.

As a conclusion, we can say that the participation of the employees in the decision-making process in a democratic environment created by a permissive leadership facilitates the development of the internal motivation and contributes to increasing production and employee morale.
1. NICOLESCU, O., VERBONCU, I., 1996, Management, Editura Economică, București;
2. *** http://www.isworld.org
3. *** http://www.managementphilosophers.com
In our country we may say that, milk and milk products consumption are low, comparatively with the developed countries. The individual milk consumption is 3.7 litres/month very much under the 8 litres drank by a consume from European Union. An shows the fact that 84% romanian consumers milk at least once a week, medium frequency being 3.8 times a week.

Key words: milk, milk products, consumption

In this way, milk is an important source of satisfying the feeding needs of human. It must be revealed the fact that the milk can be considered a very valuable food because it contains all main nutritive elements like: over 20 amino acids, 10 fat acids, 25 vitamins, 45 mineral elements, etc.

For assuring the growth and normal development of human organism for maintaining the health and his normal functions, next to the fresh milk an important place is taken by its derivates like: butter, cheese, cream, yoghurt, powder milk, etc.

The prognosis to the food consumption shows that milk and milk products a much more important place than other foods of animal origin.

The nutritive value of a milk liter, expressed in calories is equal with 400 g pork meat, 750 g veal, 600 g cow meat, 8-9 eggs, 500 g fish meat, 1.4 kg. of apples, 125 g of bread. In milk composition water is around 9/10, and dry substance 12-13%.

Fat, proteic substances, lactose and mineral salts are in large quantities while the vitamins and enzymes are in moderate proportions.

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Cow milk has chemical structure made of 87.3% water and 12.7% dry substance. Dry substance is made of 3.5% proteins, 3.7% fat, 4.8% lactose and 0.7% mineral salts. Between the different components of milk, proteic substances are attributed a special biological value, because of the essential amino acids.

After scientific standards adult human food needs can be satisfied in a large proportion through milk and milk products.

Milk and milk products being consumed no matter the age and tradition takes an important place in human food. In our country to milk and milk products were given a special meaning.

The levels of milk consumption on head have grown gradually in 1990.

Table no. 1

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<tr>
<td>Milk and milk products (litre)</td>
<td>140.1</td>
<td>194.0</td>
<td>193.0</td>
<td>197.4</td>
<td>215.0</td>
</tr>
</tbody>
</table>

Source: Romanian Statistic Annuary

The dates regarding the 1999/2000 years show that there is an obvious difference from the model of consumption point of view between the urban and rural areas.

The level of consumed milk, on month, in rural areas is almost twice bigger than in urban areas (7.0 litres, comparing to 4.2 litres) while the cheese consumption is the same in both areas.

Table no. 2

<table>
<thead>
<tr>
<th>Specification</th>
<th>U.M.</th>
<th>Total farms</th>
<th>in which</th>
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<td></td>
<td></td>
<td></td>
<td>urban</td>
</tr>
<tr>
<td>Total milk</td>
<td>L</td>
<td>6,024</td>
<td>5,208</td>
</tr>
<tr>
<td>Cheese and cream</td>
<td>kg</td>
<td>1,178</td>
<td>1,183</td>
</tr>
</tbody>
</table>

Source: The Incomes and Population Consumption in 2004

In average, on month, was reported a milk consumption of 5.66 litres of milk and 1.1 kilos of cheese and crème. The dates regarding the personal consumption – milk products consumed in the produces farms – show a
monthly consumption of 8.50 milk litres (0.6 for feeding the animals) and 0.53 kg. of cow cheese per farm, in July 1999 - June 2000 period.

In 2001 cheese consumption has grown with 1310.7 tones. The main causes of cheese consumption growth are:
- the increase of internal production with 691 tones at 13964 tones;
- the increase of the initial stocks of cheese with 31%.

The exports represented only 6% from the total demand of cheese on the first semester of 2001 face to 8% in 2000. Although the internal cheese consumption has grown with 6% and the exports went down with 35% the final stocks were diminished with 4% and registered only the 1710 tones level.

In our country we may say that, milk and milk products consumption are low, comparatively with the developed countries.

In present, in what concerns the cheese, regarding to APEL, the romanians consume five time less milk products than the people of the European Union countries. Meaning, instead of 18 kilos of cheese in one year we eat only 4. From one year to another the romanians are buying less because of the prices. It has reached to the situation in which the margarine is preferred to butter being less expensive. From the cheese offered the most appreciated by the romanian consumers is the traditional cheese, buyed for 77% of buyers.

The causes that leaded to realization of a low milk products consumption doesn’t resume only at the diminution of milk cow effectives, the growing of prices of milk products ant the going down power of buying of population, but also to the low interest for redressing the production and prework sector of milk. To support this affirmation comes the next arguments:
- the lack of subventions given to the milk cow breeders;
- the low price offered to producers for milk and the delay of payment;
- the lack of co-interest of the producers for obtaining a good milk (payment being done at the established price, no matter the microbe charge of milk).

A market study for milk products made in 1999 by Mercury Marketing and Research Consultant ordered by Land O’Lakers show some interesting aspects regarding the consumption habits and supply of the romanians. 60% of the consumed milk is not processed, 87% of the urban
drinks milk once a week, liquid milk, margarine and cheese are the most wanted products by the Romanian consumers; except the ice cream all other milk products are associated with breakfast. The preferences of the Romanian consumers are first turned to the Romanian milk products and then to the imported one: for distribution of liquid milk is preferred the plastic packing.

The annual milk and milk products consumption in fresh milk equivalent on the head of inhabitant was 2002 – 215.0 litre/head of inhabitant while the norms of Food and Agriculture Organization (FAO) and World Health Organization recommends 247 litre/head of inhabitant.

A large part of cow exploitation produces for self consumption. The milk self consumption under different sorts (expressed in milk equivalent) represented in 1995-1997 period 40% from the milk total production, and from 1998 these quantities went down to 21% from the total.

Going from the social importance of milk and milk products consumption for children, the Romanian Government introduced beginning with 2002-2003 scholar year the free distribution of a glass of milk or other milk products for children from I-IV classes, attending that this project to the extend to other categories of children.

A Romanian buy twice less milk and five less cheese than a citizen from European Union. A study realized by the Alliance for Educational Promotion of Milk (APEL) show that Romanian consume 4-5 litres of processed milk, the difference till 65 litre/year (consumption on the head of inhabitant) representing the unprocessed milk consumption.

The same study shows a low of unpacked milk. Also in urban area the packed milk has 47% from the market, yoghurt 10%, traditional cheese 7%, mixed milk 5%, cream 4%, fruits yoghurt 4%. Other products occupy 16% from the market.

It is interesting the fact that, in what concerns the milk consumption on the head of inhabitant, a Romanian consumers mostly equal milk and bier.

If bier consumption is 60 litres on head of inhabitant, milk consumption doesn’t exceeded 65 litres.

The individual milk consumption is 3.7 litres/month very much under the 8 litres drinked by a consume from European Union. An shows the fact that 84% romanian consumers milk at least once a week, medium frequency being 3.8 times a week. From the total of consummated milk production, almost half are bought from markets or unauthorized
commercial agents. 22% from the ones who buy packed milk were influenced by the price, preferring to buy from peasants or milk in plastic package because is less expensive.

Table no. 3

Medium consumption of milk and milk products on the categories of farms (monthly medium quantities on the one person)

<table>
<thead>
<tr>
<th>Specification</th>
<th>U.M.</th>
<th>Total Farms</th>
<th>Farms of:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Salariates</td>
<td>Farmers</td>
</tr>
<tr>
<td>Total milk</td>
<td>L</td>
<td>6,024</td>
<td>5,513</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>4,436</td>
</tr>
<tr>
<td>Cheese and creme</td>
<td>kg</td>
<td>1,178</td>
<td>1,165</td>
</tr>
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<td></td>
<td>0,875</td>
</tr>
</tbody>
</table>

Source: Population incomes and consumption in 2004

It observes from the dates of the table that farmers are the one which consumes a large quantity of milk and milk products.

Not in the case of cheese we don’t stay very well. Seeing an opinion poll made by APEL, the romanians consume five times less milk products than the inhabitants from E.U. So, instead of 18 kg. of cheese in one year we eat only 4.

From one year to another romanians are looking more often in their packets and buy less. That is why the margarine is preferred to butter because of the less expensive price.

Because of this 84% from the Romanian consumers prefers native products, although they recognize that the imported one is better. From the offer of cheese the most appreciated by the romanian consumer is traditional cheese bought by 77%.

Food habits of the romanians are different from the world consumers, the native market of the yoghurt being very fragmented because of the large number of local productors.

The biggest consumers of natural and fruits yoghurt were in the last period the farms made of three persons, 28% at natural yoghurt and 30% fruits yoghurt, representing 21% from total farms in Romania. Though a seminificative grow was registered at fruit yoghurt consumption from 25% at 37%.

On the natural yoghurt market as on the one of fruit yoghurt were registrated growing’s of family consumption in Romania with 3% and 11%
in volume in January-August 2003 period comparatively with the same period of the last year relevant dates in a GFK Romania study.

After a significant growth until 2000, the margarine market was maintained at a constant level in the last years. Annually, Romanians consume around 50,000 tonnes of margarine. Margarine sold in plastic packets has over 85% from the market while the packet in special package are around 15% and they are growing.

The consumption is just 2.2-2.5 kg per year for one person which represents a five times less potential than E.U. markets.

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This paper presents an overview of the current accounting reform from cash to accrual in Romanian universities. An important issue is the mixing up of the traditional budgetary accounting system with the new financial accounting system, which is primarily transferred from business accounting. The empirical examination reveals that there are a lot of accounting problems in the area of the reformed regulations as well as in the accounting practices and that the comparability of the annual reporting is not guaranteed.

Key words: cash accounting system, accrual accounting system, public higher education institutions.

1. INTRODUCTION

The Romanian Public Sectors have encountered a number of financial accounting changes and an increasing responsibility over the last ten years. There is a general tendency of reforming traditional cash accounting towards business-like accrual accounting. For Romanian Universities the former accounting system was a budgetary cash accounting system. This paper aims at presenting a general view of the empirical outcomes of the accounting reform and its merits focusing on the Romanian Universities and their annual accounts.

The subject is mainly studied from a technical-accounting point of view, although the usefulness of the new accounting output towards the users is an important ingredient.
2. OBJECTIVES AND IMPORTANCE OF THE REFORM

Firstly, the traditional cash accounting system is criticized as being no longer satisfactory. A total view of assets and liabilities is not recorded nor disclosed, cash accounting is perceived as being too much focused on a legislative control mechanism of public funds, recording and controlling receipts and expenditures; but, without providing management information.

Secondly, the reform aims to transfer accounting and management principles and techniques as used in the profit sector. Apparently, business administration tools and techniques are assumed to be useful and transferable without any further proof.

The changing and more extensive role of accounting in the public sector becomes obvious: instead of being an ex post recording of financial data and budget to date, the new financial accounting system aims at measuring academic assets and liabilities and at improving performance and financial management.

Public higher education institutions, inclusively the agricultural type, have some specific characteristics which need a profoundly analysis of the way in which these institutions are influenced by the financial and accounting reform in accord with the harmonization of the public accounting with the International Accounting Standards.

These particularities are: 1. First balance sheet
   To enable a change from cash accounting to accrual accounting it is necessary to draw a first balance sheet at the starting date of the change.

2. Art patrimony, musea, historical exhibits
   For most of the academic fixed assets such as administrative buildings, school buildings, equipment, etc. the assumption as if they were economic business assets could be accepted. All such assets can somehow be “realised” in an economic sense; a valuation on the balance sheet seems reasonable. However, a number of assets having only a cultural, social, artistic, historical, background and use are actually not real business assets.

3. Library
   Undoubtedly each university disposes of one or several libraries and an interesting question is how these assets are recorded in the balance sheet. For publications with only an historical, cultural value one could argue that the comments made for the art patrimony are also applicable. Other publications can be used by students and researchers and an economic sense could be attributed.
4. Stocks
It is obvious that each university does have stocks, but there seem to be different opinions as to the necessity and desirability of disclosing them. Some universities defend the non-disclosure by pointing at the very limited value in respect of the total assets.

The importance of these stocks (e.g. construction and maintenance goods) should not be overstressed, but, stock accounting information would contribute to the pursued improvement of university management, which is one of the aims of the accounting reform.

5. Written-off’s, provisions
The accounting reform to accrual accounting necessitates the consideration of the recording of written-off’s on certain fixed assets or current assets such as accounts receivable. Moreover, considering provisions for risks and charges becomes necessary in order to comply with accrual accounting principles.

6. suspense accounts
In a regular accrual accounting system suspense accounts should not be kept open at the end of the year, but should be cleared. In order to test the achievement of an implemented accrual accounting system in universities one could look at the existence of unbalanced suspense accounts in the balance sheets.

7. Rights and commitments (contingencies)
Applying the system of accrual accounting universities should disclose in their notes all relevant rights and commitments.

8. Disclosure valuation rules
The definition and disclosure of applied valuation rules is also an important aspect of the reformed accounting system.

9. Depreciation fixed assets
The depreciation practices differ in that some universities start depreciating in the year of acquisition where others prefer to defer the first depreciation to the year starting after the year of acquisition.

10. Investments
All universities have at their disposal a lot of investments, which are mainly caused by the cumulated surplus of financial means.

11. Accruals/deferrals
The use of accruals/deferrals is a basic characteristic of accrual accounting. Indeed, according to the matching-principle revenues and costs
should be attributed to the period in which they are earned instead of in the period they become receivable or they are paid.

3. CONCLUSIONS

For the moment there is in Romanian a strong tendency to reform public sector from cash accounting to accrual accounting. This paper examined an important accounting reform in Romanian universities mainly from a technical accounting practice point of view.

One could argue that the universities are “learning” how to implement the reform and that their approach will adjust itself automatically.

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The fiscal reform in Romania was criticized, along the years, both the Romanian business people, and the foreign investors, being considered a brake in the development’s way and in the reinforcement of the private sector and the market’s economy.

Key words: fiscal reform, budgetary, tax.

The main deficiencies reclaimed were the excessive fiscality, indefinite and not the least, the behavior and the authority’s ethics against the taxpayers. The turning moment in the reform’s approach of the fiscal regime from Romania in the year 2003, when it was elaborated, that’s true that into an imperfect form, the Fiscal Code and the Code of Fiscal Procedure, simultaneous with the launching on the market of the proposal to introduce a unique quote of 23%. A smaller rate than this-one, how is that of 16% imposed by the actual government, propose the existence of a budgetary surplus or some measures of budgetary austerity which to allow the adjustment of the earnings at a more closer level of the new earnings. In the absence of one of the two conditions, the only way to keep a budgetary equilibrium is the increase of other taxes either direct or indirect.

Into a direct plan such an approach can not lead than to situations of the kind that the budgetary institutions can not dispose of the minimum means necessary for the functioning and the achievement of their own objectives.

Although, the weight of the internal gross product (PIB) of the budget’s earnings hard-set to the state does not represent more than 29%-31%, a comparable level with that of other European countries, because of the characteristics of the Romanian economy, of its need of fast modernization, of the way it was conceived and guided the transformation

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process from an commanded economy to a market economy, this level is above the bearable limit.

The point in which reached the Romanian economy impose necessarily the realizing of a real and adequate fiscal reform.

Another victim of mark of the fiscal reform is the predictability of the taxes and excises and the reinstall of the confusion in economy.

The promoting of the fiscal reform over the night, indifferent of the state of fact of the Romanian economic system, leaded to the superposition of this shock above a few mistakes of forecast of the budget and a few additional expenses which weren’t included in the budget.

All the minuses discovered after the initialization of the fiscal reform made the shock of reducing the earnings to be over 50%-60% bigger than that initially estimated. So, evidently, there had to be made equalization measures of the budget which stroke more in the taxpayers, respective in those which had to benefit after the fiscal reform, and not those ones who promoted it, being the fact that they took care to increase their income with 25% and to tell the others that the incomes of the budgeters are frost or that the tax on the registered capital grows ten times that are going to be made material cost reduction of a few milliards.

In the last seven years, the nominal cashing of the consolidated budget, obtained through the applying of direct taxes grow from 39,3 thousand-milliard lei to 145,5 thousand-milliard lei. In this time, the weight of the internal gross product (PIB) of direct taxes decreased from 15,5% in 1997 at 6,9% in year 2004. Their weight in the earnings consolidated budget decreased from 51% in 1997 at 23% in 2004, what means that the earnings of the consolidated budget grew on the account of indirect taxes. The fiscal reform applied in the year 2005 introduces a unique installment of taxes of some person’s earnings (the income tax) and of the companies (the profit tax) of 16%, with 7% lower than the unique rate proposed for the year 2003 by the ex-government.

So, the tax rate of the profit in Romania reaches to a level comparable with the rate of the neighbor countries, such as Hungary – 16%, Bulgaria – 15%. Comparative to other countries that apply a unique assessment of taxes, the level of the uniform tax from Romania is one of the lowest. In Estonia, the unique quota is of 26%, in Slovakia – 19%, in Russia – 13%.
Nowadays the actual government promotes a shock therapy as well as from the introduction of a unique rate of taxation, as well as through the reduction of this one at the level of 16%. The main effect of the introduction of the unique quote of taxation should manifest at the level of the employees with big wages, which could benefit by an increase of the incomes between 10% and 20%, in the conditions in which the costs with the work force of the hirer should rest constant, namely, the gross wage would maintain at the same level. So, at a gross wage of 30 millions, the part that returns to the employee from the total costs of work force is increasing from 44,3% to 52,7%. While at a wage of 10 millions lei the increase is from 53,1% to 55,6%. Is true, that this fact is possible if the hirers wouldn’t make such big pressures on the employees for the reduction of the gross wages, so that the net wage to rest unmodified, what in the plan of the profit’s account and loss of the company should mean savings at the chapter outlays and, implicitly, a spore of financial resources.

The reduction of the taxes on the natural person’s incomes and on the profit of the companies imposes the increase of other taxes and duties, for the equilibration of the cashing at the state’s budget.

Until 2004, the incomes of the legal persons were taxed with 10%, and those of the natural persons, with 5%. As a result of the income’s reduction from the profit and income tax at 16% and the necessity of the covering gaps from the state’s budget, the Romanian government decided to increase the tax on dividends for natural persons from 5% to 10%, in this way being applied, a share (quote) of tax equal with that used in the case of legal persons. Through this measure, the profit due for the fiscal year is going to be taxed with 32,5% (25% profit tax and 7,5% - part from the gross profit due for the tax on dividends) and that of the year 2005, with a percentage of 24,4% (16% profit tax and 8,4% - part from the gross profit due for the tax on dividends).

Once with the introduction of the new fiscal reform, it was increased the income tax of the micro-industrial units, from 1,5% at 3%. So, for the fiscal year 2005 a micro-industrial unit pays 4 direct taxes of 13% - 15% (3% tax on the number of bargain and 10% tax on dividends). The increase of the tax for micro-industrial units had two purposes. The first is that of obtaining, directly, a supplemental income at the budget, and the second the increase the costs for the maintaining of a micro-industrial unit, so to become less attractive for being used as a way of obtaining big wages,
avoiding numerous taxes and contributions which burden the income of an employee with card work.

The increase of the taxes touches the representations of the foreign companies, for which the share (quota) of tax income increase from 5% to 10%.

The contributions at the social assurances of state represent approximately 5,9% from the internal gross product (PIB), respectively 28% from the consolidated budget’s incomes.

The contributions at the social assurances of state (CAS) rest at the shares from the previous years, is divided between the employee (a third) and the hirer (two thirds). The minim rate is of 31,5%, and the maxim limit for which is paying is of five medium wages on economy.

One of the main problems of the budget for social assurances is the reduced number of taxpayers and the big mass of beneficiaries.

The unemployment fund is supplied through the contribution of the hirer (3% from the gross wage) and the employee (1% from the gross wage). In this case, too, as well as at the budget of social assurances, it can be noticed the redistribute character and the deficiency of the correlation between contribution and the value of the counter service (equivalent to the activity). So, the help of unemployment is limited at 75% from the minim wage on economy, respectively 78 – 80 USD/month, what means that an unemployed can receive until 675-720 USD, for all the period of granting the unemployed help (nine months). An employee with a gross income of 2000 USD monthly contributes at the unemployment fund with almost 1400 USD in only one year and he can hope to receive, in the case he will be unemployed, only the sum previous mentioned. In the same time the state pays to the disponibility from the sector of state the medium wage on economy for about 15-24 months, as compensatory payments. This means that the employees with big wages subsidize a mass of ex employees of state, which don’t have any challenge to accept jobs in the exchange of a smellier income or equal with that he cashes gratis. The need of resources to realize different objectives with a social character, in the conditions in which the income tax was reduced, puts the government in the situation to postpone for the years 2006-2007 the reduction of the social contributions, which should be correlated with an accelerated reform of the pensions. The executive propose an ambitious objective, that to reduce CAS with 10%, until in the year 2008.
All the incomes obtained during a fiscal year by the natural persons should be gathered. But, in order that the banking interest is anyway a supplemental source of funds for the persons with small incomes, a long time the taxation of this one, through the retaining at source, kept at 1%. The fiscal reform in 2005 reached at this chapter, too. The need of budgetary resources determined the actual government to decide for the increase of taxation rate from 1% to 10% for the interests cashed from the natural persons. The most affected persons are going to be those with a small income, which supplemented their resources, with the interests cashed after the savings deposited in commercial banks. For the year 2006, the government proposes an increase of the tax at 16%, to integrate this income, too, in the tax system.

The same way happened in the case of financial transactions at the exchange. The applying mechanism of the new tax seems to be very complicated: the applying of a unique quote of 10% from the capital income obtained after April the 1st 2005 and of 1% from that realized previous. The holding of financial assets during a year is going to lead to the applying of a rate of 1%, too. Moreover, the income capital can be taxed only in the moment of its extraction, namely, in the moment of selling the financial assets. This mechanism can lead to the avoidance of paying the tax, through the holding of the rights more than one year. It is possible that the predictions of the government referring to the incomes to do not realize and to resort to the increase of other taxes, to supply the deficiency of cashing from this tax.

No even the real estate transactions were avoided. The new taxation rates of the real estate transactions realized by legal persons increase from 10% to 16%, the tax of 10% is maintained only if the real estate that is going to be sold was hold by the owner at least two years, so the income obtained enters in a common system of taxation the profit.

The indirect taxes are the most fair, from the point of view of applying, because that affects us all in an equal way. In Romania, the weight of indirect taxes at the consolidated budget increases from one year to another. So, in 2004 the indirect taxes represented 12% from PIB, respectively 40,6% from the nominal cashing of the consolidated budget of state. The biggest weight from the total of all the indirect taxes is the tax on the added value? (TVA) – 58%, which represents 10% from PIB and 23%
from the incomes of the consolidated budget. A percentage of 20% from the
incomes of TVA is allotted to the local budgets, for the financing of their
own activities. Excises - taxes on consumption – are on the second
place from the total incomes of indirect taxes, with 27,9%. The third indirect
tax, from the point of view of the weight in the total cashing of the
consolidated budget – 2,3% is given by the custom duties, which represents
5,7% from indirect taxes. The decision of increasing the indirect taxes is, by
one hand, leaded by the fiscal reform, who’s philosophy is in continue
movement, and on the other hand by the adhesion process of Romania in
UE. An important element regarding this background at the European Union
is the adjustment of the excise’s quotes, in Euro, at the levels from UE,
concomitantly with the introduction of excises for the thermal energy,
electric power, natural flatulencies, etc.

The increase of the costs through the increase of the excises can
have an important impact on the company’s gaining, to this one can add
another factor, namely the evolution of the exchange course leu/euro. The
moment of applying the new excises superpose, almost, with that of
reduction, with a third part, of the subvention given to the manufacturers
and the distributors of thermal agent.

The increase of the taxes for agricultural lands propose is the passing
from a fix sum, in lei, to the applying of a tax of 16% on a value of taxation
imposed by the government. This tax wishes to be imposed until January the
1st 2006. Without too many calculations, we can catch a glimpse of the
impact on the rural environment and on the peasant households will be
devastated. The market economy is less present in the rural environment and
the majority of the peasant households use the little agricultural production
especially for its own consumption, the agriculture being practiced, usually,
a subsidence one. Moreover, the majority of the peasant households dispose
of little financial resources under the aspect of money.

The modification of the fiscal legislation abashed the negotiations of
the Romanian government with the FMI representatives, which are afraid
that, through the introduction of a unique quote of 16% are threaten the
cashing at the state’s budget. While FMI looks skeptic, the actual minister
of finances is trustful in the results of his new fiscal politics from Romania.
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<td>five parts on annual income, with</td>
<td>three parts on annual income, with</td>
<td>personal deduction - equal</td>
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<td>marginal installments of 18%, 23%,</td>
<td>marginal installments of 14%, 26%, 38%</td>
<td>personal deduction - equal</td>
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<td>28%, 34%, 40%</td>
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<td>Personal deduction - equal</td>
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<td>personal deduction - equal</td>
<td>personal deduction - between 2.5 millions and 6.5 millions for the incomes under 30 millions</td>
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<td>Deduction of 200 Euro/year for private assurances of health</td>
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<td>Deduction of 200 Euro/year for private pensions</td>
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<td>Other deductions</td>
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<td>there are eliminated any other deductions</td>
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<td>Dividends tax</td>
<td>Natural persons 5%</td>
<td>Natural persons 10%</td>
<td>natural persons 10%</td>
<td>16%</td>
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<tr>
<td>Income tax of the micro-industrial units</td>
<td>legal persons 10%</td>
<td>legal persons 10%</td>
<td>legal persons 10%</td>
<td>16%</td>
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<tr>
<td>Income tax from interests</td>
<td>1.5%</td>
<td>1.5%</td>
<td>3%</td>
<td>incompatible UE (the micro-industrial units disappear)</td>
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<tr>
<td>Yielding tax of using goods</td>
<td>income tax, deduction 50% for buildings, 3% for other assets</td>
<td>income tax, deduction 50% for buildings, 3% for other assets</td>
<td>deduction 16%, deduction for outlays 25%</td>
<td>deduction 16%, deduction for outlays 25%</td>
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<tr>
<td>Income tax from participation titles</td>
<td>1%</td>
<td>1%</td>
<td>10%</td>
<td>16%</td>
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<tr>
<td>Income tax on immovable transactions</td>
<td>0%</td>
<td>0%</td>
<td>0% (10% if the propriety is sold until 3 years passed from its buying)</td>
<td>16% if the propriety is sold until 3 years passed from its buying</td>
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<tr>
<td>Special rules applicable the selling-cession the immovable proprieties and the titles of</td>
<td>10%</td>
<td>10%</td>
<td>10%</td>
<td>16%</td>
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<td>participation-legal persons</td>
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<td>TVA</td>
<td>19%</td>
<td>19%</td>
<td>19% (FMI asks 22%)</td>
<td>19% (FMI asks 22%)</td>
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<td>Tax on agricultural lands</td>
<td>Fix tax in lei (small sum)</td>
<td>Fix tax in lei (small sum)</td>
<td>Fix tax in lei (small sum)</td>
<td>16% from the value of taxation established by the government</td>
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<td>Health assurances</td>
<td>13,5%</td>
<td>13,5%</td>
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<tr>
<td>Social assurances (limit until five medium wages on economy)</td>
<td>31,5%, 41,5%</td>
<td>36,5%, 39,5%</td>
<td>29,5%, 34,5%</td>
<td>31,5%, 41,5%</td>
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<tr>
<td>Assurance in case of accidents and professional diseases</td>
<td>0,5%</td>
<td>0,5% - 0,4%</td>
<td>0,5% - 0,4%</td>
<td>0,5% - 0,4%</td>
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<tr>
<td>Unemployment fund</td>
<td>4%</td>
<td>4%</td>
<td>4%</td>
<td>4%</td>
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<tr>
<td>The gross medium wage on economy</td>
<td>7.682.000</td>
<td>9.211.000</td>
<td>9.211.000</td>
<td>10.224.000-11.165.000</td>
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<tr>
<td>Minimum wage wished on economy</td>
<td>2.800.000</td>
<td>3.100.000</td>
<td>3.100.001</td>
<td>3.100.002</td>
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<td>The source: the Public Minister of Finances</td>
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Due to International Accounting Standards and to accounting legislation in use, we know and apply in Romanian accounting nine principles that represent the basis of financial accounting.

Key words: principles, financial exercise, accounting policy, accounting standards.

Les standards internationaux de comptabilité peuvent être utilisés de manières différentes, les plus fréquentes étant :

- par application directe, en qualité de normes comptables nationales
- comme documentation utile dans l’élaboration des normes comptables nationales
- comme référence en vue de l’assurance de la comparabilité des réglementations comptables nationale aux normes comptables internationales.

Au plan mondial en matière d’harmonie comptable, deux organisations professionnelles internationales sont spécialement actives :

le Comité pour les Standards Internationaux de Comptabilité (1973) ayant comme objet l’élaboration et la publication des standards comptables internationaux concernant la présentation de la situation financière, ainsi que l’assurance de leur acceptation et application à échelle mondiale (IASC).

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la Fédération Internationale de la Comptabilité (IFAC) 1977 a des préoccupations liées spécialement des Standards Internationaux d’Audit, éthique professionnelle et formation de la profession comptable. La procédure d’évaluation des standards fait appel aux nombreuses consultations, au niveau de groupe ainsi qu’au niveau des membres IASC concrétisée en plusieurs étapes.

Conformément aux Standards Internationaux de Comptabilité et à la législation comptable en vigueur, on connaît et on applique dans la comptabilité roumaine neuf principes, qui représentent le fondement de la comptabilité financière :

**LE PRINCIPE DE LA CONTINUITÉ DE L’ACTIVITÉ**

Ce principe suppose que l’entreprise continue normalement son fonctionnement d’une manière prévisible sans entrer dans l’impossibilité de la continuation de l’activité ou sans la réduction de sa signification.

Si l’administration de l’entreprise prend connaissance de certaines éléments d’incertitude liés de certaines événements qui peuvent mener à l’incapacité de continuer son activité, ces éléments doivent être présentés dans les notes explicatives.

Au cas où les situations financières ne sont pas accomplies en base du principe de la continuité de l’activité, cette information doit être présentée ensemble avec l’explication concernant la modalité d’élaboration du rapport financier respectif et les raisons qui ont été à la base de la décision conformément à laquelle l’entreprise ne peut pas continuer son activité.

L’applicabilité de ce principe suppose la précision expresse dans le rapport de gestion si on prévoit dans le futur proche une réduction sensible du volume d’activité.

**LE PRINCIPE DE LA PRUDENCE**

Conformément à la définition donnée par le plan comptable français, la PRUDENCE est l’appréciation raisonnable des faits de manière qu’on évite de risque de transfert sur le futur, de l’incertitude du présent susceptible de grever le patrimoine et le résultat de l’entreprise.

Les normes comptables roumaines actualisées demandent que la valeur de tout élément patrimonial soit déterminée en base du principe de la prudence vu les aspects suivants:
la prise en considération seulement du profit reconnu jusqu’à la date de la conclusion de l’exercice financier.

la prise en considération de toutes les obligations prévisibles et des pertes potentielles qui ont pris naissance au cours de l’exercice financier conclu ou au cours d’un exercice financier antérieur même si ces obligations ou pertes apparaissent entre la date de la conclusion de l’exercice et la date de l’élaboration de la situation financière.

la prise en considération de tous les ajustements de valeur dus aux dépréciations, soit que le résultat est profit soit perte.

**LE PRINCIPE DE L’INDEPENDANCE DE L’EXERCICE**

Il suppose la prise en considération de tous les revenus et toutes les dépenses relatives à l’exercice financier pour lequel on fait le rapport sans tenir compte de la date de l’encaissement ou de l’effectuation des paiements.

Des applications en pratique de ce principe il résulte de 5 conséquences au moins :

- la nécessité de l’application d’une comptabilité d’engagement
- la nécessité du calcul à la fin de chaque exercice financier des dépréciations irréversibles et réversibles.
- la nécessité de mentionner dans les notes explicatives les éventuelles dépenses et revenus afférents aux exercices financiers antérieurs mais constatés et comptabilisés dans l’exercice financier courant.
- la nécessité de la comptabilisation dans le compte de l’exercice financier expiré les événements ou situations constatées postérieurement à son expiration mais antérieurement à a conclusion des comptes.
- la nécessité de faire l’évidence des événements produits dans l’exercice financier expiré mais constatés postérieurement à la conclusion de leurs comptes.

**LE PRINCIPE DE L’EVALUATION REPAREE DES ELEMENTS D’ACTIF ET PASSIF**

Vise le fait qu’on va déterminer séparément la valeur afférente à chaque élément individuel d’Actif et de Passif.

Ce principe est explicité dans le contexte de l’harmonie des Normes de la Comptabilité Roumaine avec la Directive IV de la Communauté
Européenne où on recommande à côté de la continuité de l’activité indépendante à l’exercice, la prudence et l’intangibilité du bilan d’ouverture.

Conformément à la Directive IV, la dérogation de ces principes est admise seulement dans des cas exceptionnels, quand on fait appel à ces dérogations elles doivent être signalées dans l’annexe et motivées avec l’indication de leur influence sur le patrimoine, la situation financière et sur les résultats.

**LE PRINCIPE DE L’INTANGIBILITÉ DU BILAN D’OUVERTURE**

L’essence de ce principe réside dans le fait que le bilan d’ouverture d’un exercice financier doit correspondre au bilan de conclusion de l’exercice financier précédent à l’exception des corrections imposées par IAS no. 8 (le profit net ou l’aporte nette de la période).

L’application de ce principe interdit comme effet le changement de la méthode de la comptabilité ou la correction de certaines erreurs fondamentales, d’imprimer les capitaux propres avec lesquels une entreprise commence son exercice financier.

**LE PRINCIPE DE LA PERMANENCE DES MÉTHODES**

Suppose l’utilisation au cours de plusieurs exercices financiers des mêmes méthodes et politiques comptables.

La modification des politiques comptables sont permises seulement si elle est demandée par la loi, par un standard comptable ou comme résultat des informations plus relevantes ou plus crédibles concernant les opérations de l’entreprise.

**LE PRINCIPE DE LA NON-COMPENSATION**

Ce principe a comme point de départ la réalité conformément à laquelle les relations de l’entreprise avec des tiers sont basées sur des contrats économiques qui doivent être exécutés chacun en partie et la comptabilité doit fournir des informations regardant le résultat profitable ou déficitaire de chaque contrat en ne pas permettant la compensation des bénéfices d’un contrat avec les pertes d’un autre contrat.
LE PRINCIPE DE LA PREVALENCE ECONOMIQUE SUR LE JURIDIQUE

Conformément à ce principe, les informations présentées dans les situations financières doivent refléter la réalité économique des événements et des transactions non seulement dans leur forme juridique.

L’applicabilité de ce principe suppose l’enregistrement dans la comptabilité des événements des procès et des phénomènes de la vie d’une entreprise en conformité avec leur nature économique et avec la réalité financière dans tenir compte d’une manière concluante de l’apparence juridique. L’acceptation ou la non-acceptation de la priorité de la réalité économique devant l’apparence juridique mène à une interprétation différente du concept d’image fidèle. L’image fidèle est pour les anglo-saxons le principe suprême et pour la majorité – le système de la comptabilité européenne.

LE PRINCIPE DES SIGNIFICATIONS

Conformément à ce principe tout élément qui a une valeur significative doit être présenté séparément au cadre de la situation financière. Les éléments à valeur non-significative qui ont la même nature ou les éléments avec des fonctions similaires seront totalisés sans être nécessaire leur présentation séparée. On doit éviter l’extrême de la présentation de certaines informations trop agrégées et trop condensées inintelligibles par les utilisateurs externes ainsi que l’extrême de la présentation des informations trop abondantes qui suffoquerait les utilisateurs externes avec des détails inutiles et insignifiants.

L’applicabilité du principe a de la relevance non seulement dans l’élaboration de la situation financière plus exactement des notes explicatives mais aussi dans les applications et les interprétations des autres principes comptables admises.
BIBLIOGRAPHIE

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The paper work contains a possible model for underlying the production strategy for an agricultural holding from Timis County, based on the results of the SWOT analysis of both the national situation in agriculture and the development possibilities of the vegetal farms in Banat and on the internal analysis of the firm.

**Key words:** production strategy, agricultural holdings, internal and external environment analysis, SWOT analysis, decision making software, production strategies

**INTRODUCTION**

Developing production strategies in vegetal farms is based on a process of analysing and evaluating the external and internal environment and competitiveness. The SWOT test is used in order to detect the changes that occur both in the internal and the external environment.

**SWOT ANALYSIS OF THE AGRICULTURAL HOLDINGS IN BANAT AREA AND NATIONAL LEVEL**

Both the national situation in agriculture and the development possibilities of the vegetal farms in Banat were analysed.

Some of the *strengths and opportunities* of the latter are: financial stability in the family farms, as most of them rely on their own financial resources; increasing labour productivity; high production potential; qualified labour force; fertile land; low environmental pollution; constant number of inhabitants; relatively low unemployment rate; modern road connections with the county and village roads; favourable weather conditions for ecological agriculture; large arable land area; stable exchange
rate for the main currencies since 2002; the unemployment rate level in Timis and Arad Counties are close to those in the European Union; similar production methods allow competitive advantage by applying other methods, such as no-tillage; multiple possibilities of creating and organising agricultural farms; the borders with Yugoslavia and Hungary facilitate cooperation with the neighbours and product capitalisation; favourable and very favourable areas for straw cereals, especially in Timis and Arad; the sugar and malt processors; high annual average cereal consumption per capita; technical plants are cultivated on small areas; the opportunity of investing in agricultural farms by low interest or non-repayable credits 50% funded from SAPARD.

The weaknesses and threats at vegetal farm growth are: the lack of strategic average and long-term programmes; low turnover levels of some farms; too large stocks; difficulties in cashing the product equivalent from the customers; improper, morally and physically depreciated infrastructure; the profit rate level is below 10%; reduced cultivated areas because of high costs; soil erosion and settling; land fragmentation; the lack of specialised business consultancy for potential investors; precarious farm tools; difficulties in acquiring chemical fertilisers and pesticides; the lack of distribution channels; problems in capitalising the vegetal production; the lack of agricultural produce processors; a low degree of produce processing; non-competitive agricultural structures; the population’s households prevail; the associative forms are poorly represented; the 22.5% inflation rate in 2002 and the decreasing 20.4% interest rate in 2003 are still above the European mean; a larger share of the equivalent of the consumption of agricultural products from own resources, especially for peasant households; differences between managing the VAT in the farms with legal status and those without legal status; too many links between the minister and the farmers; the low technical level of tools on the domestic market as compared with the one on the external market; a negative demographic output in the past years and a smaller share of the 50-year-old agricultural employees; the current legislation is not stable enough; the lack of oil industry processors; the large number of agricultural employees (approximately 35%) in the 5 West area.
PRODUCTION STRATEGY FOR ILIMOTIM LTD

I’ve identified a strategy model for a vegetal farm organised as a limited liability unit.

Based on the information regarding the competition environment and the economic-financial diagnosis, the development strategy suggested for Ilimotim Ltd. consists in leasing a 100-hectare area and organising its activity to match the market requirements.

At first Ilimotim Ltd. from Biled Village was described with the help of general data, details about its fixed assets, personnel structure, crop structure and the company’s chief partners.

The programme for the development of the production strategy is preceded by an economic-financial diagnosis for 2000-2003.

Based on a series of technical and economic information on crops and the mathematical models presented in this thesis, we created a software application that can be used by the managers of the vegetal farms. The application provides quick information on the economic efficiency of a crop structure variant (the reference variant) and several structure variants (maximum 60 simulated variants), by comparing two structure variants at a time: one reference variant and one chosen from the simulations.

In our case, in the simulated variant we changed the cultivated area of the average productions and expenditures per hectare, in order to obtain certain product quantities specified in pre-established agreements. Naturally, it is possible to create a multitude of simulated variants with changes in the cultivated area (for instance, depending on the quantity of contracted products), the main and secondary production (following irrigation, for example), the expenditure level (if a new cultivation technology is applied), on condition that the restrictions regarding the cultivated area, the human resources and crop rotation etc. are respected.

The application can be used to calculate economic indicators and their differences. It can also be a support for planning the activity of a vegetal farm.

In a farm, the process of establishing crop structure does not take places every day. Therefore it is necessary to comply with criteria of economic efficiency. Questions like what to produce, how to produce and how much to produce need to be answered every year in order to develop the annual production plan.
Profit, productivity and profit rate are the main criteria in selecting the production structure. However, the programme provides much more economic efficiency indicators.

After comparing the simulated variant with a reference variant and after analysing all the efficiency indicators, the reference variant was selected as the final crop structure one. The crop structure, the level of average productions, prices and expenditures per hectare given in the selected variant were used as starting point in the prognosis for 2005-2009.

The market requirements for the vegetal produce call for the reorganisation of the new area which must also match the productive land potential, the economic efficiency of every crop, the labour force etc. This is to be found in the production plan of the agricultural unit and has a previsional character.

Five stages are necessary for developing the production plan: to forecast the average productions; to establish the optimum crop structure; to determine the estimative level of used resources; to forecast the production results; to forecast the expenditure and income level.

The income and expenditure budget is part of the financial plan that reflects the production, supply etc. activities.

CONCLUSIONS

The profit rate is fluctuating but positive during the whole forecast period, with values between 1% in 2008 and 40.4% in 2005. The chance to obtain a rising profit rate decreases with every year after the reference year.

Although for the forecast period the profit rate level is not very high, its positive value every year is a guarantee that the farm activity will be continuous and the suggested strategy variant is worth being taken into account.

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TURNOVER ANALYSIS IN THE AGRICULTURAL HOLDINGS FROM TIMIS COUNTY

ANALIZA CIFREI DE AFACERI ÎN EXPLOATAȚIILE AGRICOLE DIN JUDEȚUL TIMIȘ

C. CRISTA*, ANDREA NAGY*

In this paper work is analysed, in dynamics, the evolution of turnover in agricultural holdings from Timis County. The study was made on a sample of 31 agricultural holdings with juridical personality. According to CAEN classification the main activity of these holdings is vegetal cultivation.

Key words: turnover, agricultural holdings, economic analysis

1. INTRODUCTION

According to current accounting norms the turnover indicator is determined on the basis of synthesis form “Profit and losses account” by adding product sales with the value of sold production value.

The accounting system from Romania assess that the value of invoiced goods, production or services hereof to be included in turnover regardless to the level of cash received from customers.

This indicator is able to give an image about the position on the market of a respective firm. Therewith he shows the force which a firm represent in the respective sector of activity.

It must be made a distinction between turnover, which represent an indicator of effect and profit which is an indicator of efficiency. There are many cases in which a higher level of sales, recorded by a firm, is realised by minimum levels of profitability or even through losses from operational activities.

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2. MATERIAL AND METHOD

Turnover analysis was made on a sample of 31 agricultural holdings, from Timis county. Nine agricultural holdings are Companies with Limited Liabilities; nine agricultural holdings are stock companies (Agromec); the rest of thirteen agricultural holdings are stock companies (Agroindustriala).

The analysed period is included between 2000 and 2003. The last type of agricultural holdings has been privatised in the year 2001, according to the low 268/2001 concerning privatisation of companies which detain in administration fields with agricultural destination in public and private properties of the state.

Dynamic evolution of turnover can be expressed in absolute measures or relative measures and accentuate the analysed indicator level deviation toward a starting point. These starting points can be represented by indicator levels realised in the precedent years.

Dynamic analysis was made on the basis of variation indices (with fixed basis or chain basis).

The analysis must be made in comparable units, especially if the agricultural holding activate in an inflationist economic environment. The inflation rate had values smaller than 100% (table 1).

Table 1

<table>
<thead>
<tr>
<th>Inflation rate evolution in Romania</th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inflation rate</td>
<td>45,7%</td>
<td>34,5%</td>
<td>22,5%</td>
<td>15,3%</td>
</tr>
</tbody>
</table>

The account base for calculating relative deviation, with fixed base and chain base, is represented in the table 2.

Table 2

<table>
<thead>
<tr>
<th>Turnover between 2000 and 2003</th>
</tr>
</thead>
<tbody>
<tr>
<td>Category</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Total LLC</td>
</tr>
<tr>
<td>Total Agromec</td>
</tr>
<tr>
<td>Total Agroindustriala</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>
Data regarding the evolution in dynamics of turnover in the analysed companies are presented in table 3.

Table 3

<table>
<thead>
<tr>
<th>Category</th>
<th>Relative deviation Fixed base (%)</th>
<th>Relative deviation Chain base (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>01/00</td>
<td>02/00</td>
</tr>
<tr>
<td>Total LLC</td>
<td>94%</td>
<td>144%</td>
</tr>
<tr>
<td>Total Agromec</td>
<td>172%</td>
<td>207%</td>
</tr>
<tr>
<td>Total Agroindustriala</td>
<td>114%</td>
<td>122%</td>
</tr>
<tr>
<td>Total</td>
<td>121%</td>
<td>135%</td>
</tr>
</tbody>
</table>

Figure 1. Relative deviation (with chain base) of turnover

From data presented in table 3 can be observed that for LLC the level of turnover in 2001, 2002 and 2003 represent approximately 94%, 144% and respectively 208% from the level of comparison base, which is the year 2000. This means that the turnover decreased in 2001 with 6% and increased in 2002 and 2003 with 44% and respectively 108% towards 2000. In the case of Agromec companies, the increases of turnover, in relative measures, in 2001, 2002 and 2003 towards 2000 was approximately 72%, 107% and respectively 113%. Increase of turnover in relative measures in 2001, 2002 and 2003 for Agroindustriala companies was 14%, 22% and respectively 14%.
As regards to relative deviation with chain base it can be observed that for LLC the turnover increased in 2002 towards 2001 with approximately 53% and in 2003 towards 2002 with approximately 45%. If we take in consideration the inflation rate these percentages became 30.5% and respectively 29.7% (sensible equals). Acromec companies recorded in 2001 towards 2000, 2002 towards 2001 and 2003 towards 2002 increases by 72%, 21% and respectively 3%. As a result of inflation in this period the turnover recorded an increase with approximately 37.5% in 2001 towards 2000 and in 2002 towards 2001 and 2003 towards 2002 a decrease of approximately 1.5% and respectively 12.3%. A weaker situation was in Agroindustriala companies, where turnover decreased in 2001 towards 2000 by 20.5%, in 2002 towards 2001 by 15.5% and in 2003 towards 2002 by approximately 21.3%.

3. CONCLUSIONS

As a whole we can affirm that the turnover increased in 2001, 2002 and 2003 approximately by 21%, 35% and respectively 33%.

Also in some agricultural holdings we observe great fluctuation of turnover from one year to another (eg. Agrocom Toager). These fluctuations have been generated by the fact that the turnover was very small in base period, of the order of millions Lei.

From the analyse of relative deviation with chain base results that although the turnover increased approximately by 21% and 12% in 2001 towards 2000 and respectively 2002 towards 2001, in real measures, by taking into consideration the inflation rate, these values represents approximately decreases of 13.5% and respectively 10.5%.

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The commercial receiving effects and the stocks are the main guarantees sources for the short-term credits in the advanced countries. These financing alternatives are convenient and advantageous, but they can be expansive, so resorting to such financing modality will be done only after the analysis of its advantages and disadvantages.

**Key words:** financing, commercial receiving effects, stocks

**1. FINANCING THROUGH COMMERCIAL RECEIVING EFFECTS**

Financing through commercial receiving effects supposes financing on the basis of uncased clients and can be done through two modalities, each of them having certain characteristics, as follows:

- Financing through commercial receiving effects’ guaranteeing (“assignment”);
- Financing through selling commercial receiving effects (“factoring”).

**Financing through commercial receiving effects’ guaranteeing** consists in the conversion into liquidity of the debt rights which the enterprise possesses over its clients through some banks or other authorized financial institutions.

Financing through guaranteeing commercial receiving effects begins with signing an agreement judicially valid between the goods seller company and the financing institution. The agreement establishes in detail...
the procedures to be followed and both sides` obligations. The work relation once established, the selling company sends periodically the invoices to the financial institution. It analyses the bills and the goods` buyers. The bills to the enterprises which don’t correspond to the credit standards practiced by the credit offerer are not accepted as guarantees.

The financial institution tries to protect itself in each stage of the operations processed in the following ways:

- selecting bills;
- resorting to the right to appeal over the sales company when the invoiced goods buyer doesn’t pay off its payment obligations;
- the financial institution offers a credit of a lower value than the real value of the commercial receiving effects guaranteed (for instance, the sales enterprise can receive only 75% of the guaranteed invoices` value). This measure means a supplementary protection important for the financer.

It can be seen that the protection measures taken by the financial institution, the risk of commercial receiving effects` unpayment is undergone mainly by the enterprise which gets the credit and not by the credit offerer.

The financing through guaranteeing the commercial receiving effects can be done in two alternatives:

a) - non-notification financing, when the cashing of commercial receiving effects remains in the care of the seller (the one who borrows). This alternative is riskier from the creditor’s point of view, so the financing cost is also higher. The interest rate of this credit type is 6% - 8% higher than the reference rate;

b) – notification financing, supposes that the offerer takes over the bookkeeping responsibilities and the cashing ones of the commercial receiving effects, as well, and the goods buyer has to be informed about the seller company’s commercial receiving effects guaranteeing. This alternative is less risky for the crediting financial institution, so the cost of the credit is lower.

**Financing through selling commercial receiving effects or “factoring”** involves purchasing commercial receiving effects by the credit offerer, called factor, without its having the right to appeal over the borrower.
This device is also based on an agreement between the factoring company and the selling one, agreement which specifies the legal obligations of the sides and the procedures to be followed. When the seller receives an order from a buyer, a credit agreement document is written, which is sent to the factoring company so that the client should be analysed. If the factoring company consents to the credit, the merchandise is dispatched, and the bill specifies for the buyer to pay off directly to the factoring company. This a continuous flow of funds and merchandise between the three participants takes place in this operation (seller-factor-buyer), which contributes to this credit source getting a spontaneous character, directly connected to the raise of the sales figure through granting by the seller of a commercial credit to the buyer and its financing by the factor.

The credit company carries out three important functions in this device:
- credit analysis;
- loan offering;
- risk taking.

The seller can choose one of these functions or a combination through modifying the stipulations in the factoring agreement.

The cost of the factoring is materialized in a fee of 0.875% to 1.5% from the turn over for the analysis of the commercial credits offered and the risk taking, and if the factoring company offers a loan, too, the interest rate of this credit type is 2% - 3% higher than the reference rate.

As the factoring company takes over the unpayment risk of its underpayers, it has right to effect a rigorous control over terms and commercial credit standards, credit offered by the sales enterprise.

The guarantee and factoring services for commercial receiving effects are financing alternatives, convenient and advantageous, but they can be expensive. Resorting to such financing modality will be done only after the analysis of its advantages and disadvantages.

Among the advantages there are:
- the flexibility of this financing source;
- a company can use its commercial receiving effects as guarantee for a loan which cannot be received through a different method;
- factoring can offer the services of a credit department, which the enterprise cannot dispose of for itself but with very high costs.
We can mention disadvantages of financing through commercial receiving effects such as:
- when the bills are numerous and have relatively low values as absolute sums, the administrative costs involved can make this financing method inconvenient and expensive;
- as commercial receiving effects represent the most liquid assets of an enterprise second to the available in the account and the pay office, the selection of the clients to whom the seller offers the commercial credit can be done by it, too, in which case it can give up financing through commercial receiving effects because these crediting procedure costs can disadvantage those who offer the commercial credit.

2. FINANCING THROUGH STOCKS

The stocks of an enterprise provide another guarantee source for short-term credits. The financing methods having stocks for guarantee include:

a) - floating charge debentures;
b) - trust receipts;
c) - warehouse financing.

a) Floating charge debentures

In this case the debtor enterprise offers as debentures to the crediting institution the total guarantee of stocks, yet still keeping the control over the stocks.

As, in these types of contracts, the bank doesn’t have total control over the assets, it has to protect the loan from an eventual injury of debentures (guarantees) offered for the loan. That is why this operation imposes on banks the obligation to monitorise the evolution of prices and not to accept all categories of stocks in credit guaranteeing, preferring those which dispose of a large market, this permitting the quick achievement of debt. No merchandise submitted to deterioration and hard to preserve will be accepted and neither will be those whose current prices are difficult to be accurately checked.
b) Trust receipts

This type of guarantees is done on the basis of trust receipt, which is sent to the credit offerer by the beneficiary of loan the moment the funds are received.

A trust receipt is an instrument that stipulates the fact that the one who received the loan possesses in management the pawned goods and manages them to the benefit of the credit offerer. The pawned goods contained in the trust receipt can be kept in the borrowing enterprise’s own deposit or can be kept in a third person’s deposit.

The trust receipt procedure is generally slow as it involves, first of all, a correct inventory and individualization of each pawned good, monitoring its destination, selling and sales-cashing, the cashed sums’ destination, stock actualization etc. The judicial problems which appear while trust receipt using are complex and require interference of a bank specialist. When the loan solicitor enterprise is remote to the credit offerer, displacement costs also intervene. All these lead to such guarantee not being agreed by all banks, as warehouse financing methods are more and more used.

c) Warehouse financing

Like trust receipts, warehouse receipts use stocks to guarantee loans.

Stocks can be stored in special buildings, usually warehouse, called general warehouse, administrated by public organism or private companies. The warehouse administration hands the deponents a warehouse receipt having as annex an instrument of guarantee or a warrant. The receipt acknowledges the stock being in the warehouse and the warrant offers the deponent the opportunity to endorse him to a credit bank, this constituting a guarantee for receiving the loan.

This financing modality is quite expensive because of both the voluminous goods and transport expenses and the credit interest. That is why in some countries exists the possibility to give up specialized warehouse, using a more economical financing method with the help of stocks, called “field warehouse financing”.

According to this method, the warehouse is settled within the enterprise which requires the loan and the supervision of stocks will be done
by a company specialized in such operations. This company acts like a control agent to the benefit of the financial institution. In case of smaller operations the supervision can be done by even an employee of the enterprise requiring the loan, agreed by the financer.

This short-term credit modality is successfully used by enterprises with season production or selling. Thus, at about 17% of the bank loans through “field warehousing” are used for tinned food products.

Warehouse financing has more advantages:
- the available sum is flexible as the financing is connected to the stock increase, which is also connected to the financing necessary;
- through “field warehousing” agreement the degree to accept stocks as guarantee increases;
- the necessity to control and preserve in good conditions the stocks and using specialists in the field lead to the improvement of storing practices.

The cost of this credit type is quite high because of high fix costs and supplementary administrative expenses, which reduce the feasibility degree of this type of financing for small enterprises and for those whose stock rotation rate is very high.

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THE IMPLICATIONS OF THE PRESENT-DAY CREDITING SYSTEM ON AGRICULTURE

IMPLICAȚIILE SISTEMULUI ACTUAL DE CREDITARE ASUPRA AGRICULTURII

ANDREA NAGY *

During the transitional period to the market economy, the Romanian agriculture the lack of security and of continuity in the crediting process causing low profitableness of this economical sector and decapitalization of agricultural exploitations.

Key words: crediting system, agriculture

After the revolution of December 1989 major changes have occurred in the Romanian crediting system. The entire banking activity is developed through the National Bank and the banking societies constituted as commercial societies on the basis of Law no.31/1990. Within the present-day crediting system, The National Bank is the unique organism of money emission, which co-ordinates and settles the main regulations in monetary area; the banking system liquidates and processes bank intermediating operations.

After the year 1990, the number of banks has rapidly increased (39 in 2002) and significant changes have taken place in the structure of the banking system in Romania. Agriculture crediting got restricted as a result of the land reform, as a consequence of which more than four million peasant farms were formed. Their economical organising in valid types of operation, which can resort to credits, proved to be slow. On the other hand, as a result of the macroeconomical reform negative effects (inflation, high interests), of the lagging behind in the privatisation process of state department agriculture and food industry and of low performance, the crediting activity of the entire agro-feeding sector has been restricted.

During this transition period the Romanian agriculture has faced the lack of security and continuity of crediting process, the agricultural credit

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being restricted only to directed credit (preferential), to which especially large state and associated agricultural exploitation have had access. Individual exploitations have taken benefit of only approximately 2% of this credit type between 1993-1996. Moreover, credits offered to agriculture during this period at a total of 10.970 billion lei, were mostly designed to agricultural production and stock crediting (10.815 billion lei) and only 155 billion lei were offered for agricultural technique acquisitions.

The internal resource contribution to the process of investment has been reduced generally and especially in agricultural and rural sector. The situation of credits allotted by the credit institutions on activity sectors between 2000-2003 is as follows in tabel 1.

### Credits allotted by credit institutions on activity sectors

<table>
<thead>
<tr>
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<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total sums allotted, of which:</td>
<td>billion lei</td>
<td>81502</td>
<td>118901</td>
<td>188058</td>
<td>277900</td>
</tr>
<tr>
<td>Industry</td>
<td>billion lei</td>
<td>45158</td>
<td>62847</td>
<td>94112</td>
<td>124913</td>
</tr>
<tr>
<td>Services</td>
<td>billion lei</td>
<td>27324</td>
<td>43543</td>
<td>71656</td>
<td>106454</td>
</tr>
<tr>
<td>Constructions</td>
<td>billion lei</td>
<td>3615</td>
<td>5228</td>
<td>7873</td>
<td>11737</td>
</tr>
<tr>
<td>Agriculture, silviculture, pisciculture</td>
<td>billion lei</td>
<td>744</td>
<td>1228</td>
<td>4084</td>
<td>9783</td>
</tr>
<tr>
<td>Activities of financial-banking institutions and pension houses</td>
<td>billion lei</td>
<td>355</td>
<td>842</td>
<td>1526</td>
<td>6424</td>
</tr>
<tr>
<td>Public administration, education, health</td>
<td>billion lei</td>
<td>375</td>
<td>744</td>
<td>2474</td>
<td>9914</td>
</tr>
</tbody>
</table>

*Source: RNB annual report, 2003*

It is obvious that the industry has the greatest support on the part of the banking sector. The financial resources directed towards industry represented 45% of the credit portfolio of the banks in 2003. In the same year, the credits allotted for agricultural financing represented only 8.676 billion lei that is 3.1%, being restricted from year to year. In comparison
with the agriculture contribution to the gross internal product and gross
added value and its importance in the national economy structure, the
crediting system financing is insignificant.

The low rate of credits granted to agriculture in the total credit
volume of the economy and the continuously restricting tendency slow
down the structural reform process and the formation of the agricultural
market.

Private agricultural exploitations have a harder and harder access to
credits comparing to other economical agents from other economical
activity sectors because the banks consider agriculture un unattractive area,
with a high risk rate. This is mainly due to specific features of the activity
which private agricultural exploitations develop, respectively:
- long production cycles;
- discontinuity in obtaining profit;
- high fluctuation risk of production according to natural conditions;
- the lack of inadequate insurance system to guarantee rapid
compensation of losses;
- high transactional and risk costs;
- the lack of a performant management;
- insufficient equipment with agricultural machines and tools to
assure the carrying out of agricultural process in due time and of quality;
- the instability of selling markets for the agricultural products etc.

The limited access to banking credits of private agricultural
exploitations is also determined by the following causes:
- the commercial banks require high guarantees for the credits they
allot (to 120-125% of the credit mass) and doesn’t accept the land for bond
because of the difficulties in its evaluation and because of the lack of a
transactional land market;
- because of real guarantee requirements (mortgage or pledge) on the
part of the banks even for short-term credits, private agricultural
exploitation have (restricted) limited access to banking credits. The idea to
mortgage the dwelling, the only goods (property) of the peasant which
belong to him in fact and by right, constitutes a real obstacle in the
guarantee, with unfavourable consequences in the crediting process of
agricultural exploitations;
- private agricultural exploitations- generally- don’t dispose of
persons to have the necessary knowledge (qualifications) for preparing and

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completing the extremely complex and vast documentations which the banks require when allotting credits,

- the Romanian commercial banks are not interested in advertising the products and services they offer among rural area clients, as well. That is why consulting private agricultural exploitations and facilitating their access to the economical and financial information they need are imperative.

The restructuring of majority state capital banks (especially of the Agricultural Bank) led to major changes in the structure and functioning of territorial rural banking units which processed credits for the agricultural sector. Both the number of banking agencies and the volume of credits they granted to agricultural exploitations have been restricted.

Due to these situations, the banks have restricted a lot the crediting activity, have receded from high crediting risk sectors (such as agriculture), have become more cautions and rigorous at present in the classification of their credit portfolio on risk categories.

The Law of Agricultural credit for production no. 150/2003, one of the most awaited laws for the Romanian agriculture, solves the agriculture crediting problems only theoretically as it is not functional and doesn’t offer any real support to the agricultural processors.

CONCLUSIONS

The present-day crediting system, through its specific and conditions imposed, has limited the private agricultural exploitations access to banking credits in a great measure, slowing down-thus-their modernising process.

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The 2005 budget for the EU’s Common Agricultural policy has been adopted. EUR 49.7 billion has been allocated, representing an increase of EUR 2.9 billion since 2004. This increase is mainly due to the impact of the 2003 CAP Reforms and 2004 enlargement, adding roughly EUR 1.3 billion and EUR 1.4 billion respectively to the budget.

However, the total of EUR 49.7 billion is EUR 777 million less than the Commission’s forecast needs, the cut being driven by Member State Finance Ministers. Over the coming months, budget shortfalls may need to be addressed for direct aid payments, tomatoes and possibly cereals.

**Key words:** budget, development, policy, shortfall, payment

The EU budget for the CAP in 2005 has been approved, to give a 2005 allocation for market support (Heading 1A) of EUR 42.838 billion, a EUR 1 billion reduction in market spending compared to the Commission’s initial proposals back in April 2004. Rural development expenditure for 2005 is unchanged at EUR 6.841 billion (Heading 1B, total rural development commitments).

The EU agriculture budget is split into two parts: CAP Markets or Heading 1A, and Rural Development or Heading 1B. However, for 2005, some changes are being introduced which shift some budget lines both into and out of CAP expenditure, making comparisons with previous years a little more difficult.

A significant part of rural development expenditure, EUR 3.9 billion in 2005, comes from outside of the EU agricultural budget and is not included with the EUR 6.8 billion rural development expenditure incorporated in the CAP total expenditure figure.

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The European Commission originally proposed a CAP (market support) budget for 2005 of EUR 43.8 billion back in April 2004 (agriculture budget for 2005, April 20042). This represented an increase of EUR 3.9 billion from the 2004 budget. The increases were due mainly to the additional costs of the 2003 CAP reform (+ EUR 1.3 billion) and direct payments to the New Member States (+ EUR 1.4 billion).

However, in October and November, the Council (Member State governments), driven by Member State Finance Ministers, ordered the Commission to cut EUR 1 billion from the market expenditure section of the budget (Heading 1 A). At the same time, the Commission updated its forecast budget requirements for 2005, taking into account factors such as the Dollar’s decline against the Euro and a substantial EU grain harvest in the summer of 2004. This lead to the Commission reducing their requested expenditure by only around EUR 220 million to EUR 43.610 billion.

Prolonged negotiations between the Commission and the Council lead to the adoption of the final 2005 budget which saw the Council sticking to the EUR 1 billion cut, but also ignoring the Commission’s revised budget estimates. This means that some budget lines have lower allocations that requested by the Commission – notably cereals, arable direct aids, fruit and vegetables and beef/veal. However, some budget lines have ended up with more money than requested – milk and sugar.

Expenditure can be switched between different budget lines for plant products or livestock products but not from plants to livestock or vice versa. So for example, the expected shortfall for beef and veal could be offset by the overrun expected for the milk sector.

The Council will probably need to revisit the budget lines for arable direct aid and tomatoes (within fruit and vegetables budget line) in the coming months to address the expected shortfall.

It is not clear how the shortfall in the cereals budget (EUR 395 million allocated compared to EUR 639 million, Commission’s forecast of expected needs) will be addressed. This is particularly important in light of the banner grain harvest in the EU this marketing year and the significant extra expenditure necessary for the 6.7 MMT of grain that have been offered into Foreign Agricultural Service intervention during the first two months of the intervention campaign so far in 2004/05. This shortfall could also impact on any decision by the Commission over whether to grant
export subsidies for wheat. However, it must be stressed that there is considerable flexibility in the EU budget as well as scope for the Council to revise a budget line should additional funds be needed, so in practice this shortfall will probably not have any influence on the Commission’s decision as to whether to grant export subsidies for wheat or not.

### 2005 Budget – Proposed EU Agricultural Spending

<table>
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<tr>
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<tbody>
<tr>
<td>Cereals</td>
<td>368</td>
<td>395</td>
<td>639</td>
<td>395</td>
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<tr>
<td>Rice</td>
<td>175</td>
<td>469</td>
<td>473</td>
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<tr>
<td>Arable Direct Aids</td>
<td>17,254</td>
<td>17,403</td>
<td>17,403</td>
<td>16,972</td>
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<td>Food Programs</td>
<td>226</td>
<td>223</td>
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<tr>
<td>Sugar/Monetary</td>
<td>1,721</td>
<td>1,815</td>
<td>1,669</td>
<td>1,770</td>
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<td>Olive Oil</td>
<td>2,364</td>
<td>2,355</td>
<td>2,281</td>
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<td>Textile Crops</td>
<td>886</td>
<td>936</td>
<td>966</td>
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<tr>
<td>Fruit and Vegetables</td>
<td>1,617</td>
<td>1,860</td>
<td>1,948</td>
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<tr>
<td>Wine</td>
<td>1,215</td>
<td>1,259</td>
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<td>1,228</td>
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<td>Tobacco</td>
<td>941</td>
<td>952</td>
<td>954</td>
<td>929</td>
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<td>Other</td>
<td>776</td>
<td>737</td>
<td>733</td>
<td>737</td>
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<td>Direct Aids</td>
<td>-6</td>
<td>1,388</td>
<td>1,398</td>
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<td><strong>Total Plant Production</strong></td>
<td>27,537</td>
<td>29,792</td>
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<td>29,135</td>
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<tr>
<td>Milk</td>
<td>2,959</td>
<td>3,901</td>
<td>3,534</td>
<td>3,805</td>
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<tr>
<td>Beef and veal</td>
<td>8,054</td>
<td>8,088</td>
<td>8,114</td>
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<tr>
<td>Sheepmeat</td>
<td>1,530</td>
<td>1,840</td>
<td>1,841</td>
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<td>Pigmeat/Eggs/Poultry</td>
<td>175</td>
<td>197</td>
<td>203</td>
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<td><strong>Total Livestock production</strong></td>
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<td>14,026</td>
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<td>102</td>
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<td>Ancillary</td>
<td>297</td>
<td>321</td>
<td>-</td>
<td>322</td>
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<tr>
<td><strong>Total Heading 1A</strong></td>
<td>40,240</td>
<td>43,830</td>
<td>43,613</td>
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<td>Rural Development</td>
<td>4,803</td>
<td>4,910</td>
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<td>NMS Transitional Instrument</td>
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<tr>
<td><strong>Total Heading 1B</strong></td>
<td>6,536</td>
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<td><strong>Total heading 1</strong></td>
<td>46,776</td>
<td>50,671</td>
<td>50,454</td>
<td>49,679</td>
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</table>

As it can be seen from this table, the main item in Ancillary is for disease eradication, but also includes emergency animal health measures and fishery production intervention. There is also an additional EUR 3.9 billion commitment for rural development from the Structural Funds component of the EU budget.

How reforms occur will have important consequences for developing countries, the report says, noting that the best approach is coordinated global liberalization of policies. The report illustrates the importance of a multi-commodity approach to reform, as gains and losses do differ greatly by market.

This approach would also allow the countries to trade off gains in some commodities against the losses in others. For example, world sugar price increases alone would offset about half the lost quota rents, or about $450 million, for countries with preferential access. The analysis shows that losses in rents would be much less than is commonly expected, as high production costs eat up much of the potential benefit from preferential access to the high-price markets.

Consumers in highly-protected markets will benefit greatly from trade liberalization as domestic (tariff inclusive) prices fall and product choice expands. Consumers in poor, net-food-importing countries could face higher prices if these markets were not protected before liberalization, because of higher import unit costs. In practice, however, such concerns have often been exaggerated.

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Integration of the Central and Eastern European Countries (CEECs) has been one of the main political priorities of the EU since the early 1990s. At present 10 Countries acceded in the European Union, at 1st of May 2004, Romania and Bulgaria will join the European family too at 1st of January 2007. Agricultural integration of these countries is an important aspect not only in political but also in economic terms. This paper concentrates on the impact analysis of the accession of 10 CEECs without prejudice to either the date or order of entry.

**Key words:** cereals, market, deficit, prices, payments

In the base period the CEEC’s produce 75 million tones and the EU-15 208 million tones of cereals. Under domestic policies without accession in 2007, production is foreseen to increase to 83.4 million tones in the CEEC’s and 221 million tones in the EU-15. In the accession scenarios in 2007 the CEEC’s might add approximately 92 million tones to 97 million tones.

As it results from this numbers, there are almost 10-14 million tones of cereals more than without accession, to the production of approximately 220 million tones in the EU-15. It is foreseen that between 2007 and 2012 the EU-25 would expand production by some further 7 to 9 million tones to approximately 323 million tones.

Domestic use in the CEEC’s and the EU-15 is expected to expand modestly in all accession scenarios from levels of 256 million tones in the base period with accession to 271-274 million tones in 2007 and to 277-279

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Figure 1:
Marketable Surplus for Cereals and Oilseeds in the CEEC-10, the EU - 15 and the EU - 25 in 2007

Source: European Commission Statistics, Directorate General for agriculture, 2004
million tones in 2012. Marketable surpluses of cereals in the EU-25 in 2007 might reach levels of 38 to 41 Mill. t compared to 24 million tones in the EU-15 and 9.5 million tones in the CEEC’s without accession.

The marketable surplus of the EU-25 might increase to levels of 39 million tones and 45 million tones in 2012, depending on the terms of accession.

In 2007 the market surpluses of the EU-25 are expected to consist mainly of wheat (23 million tones), barley (8 to 9 million tones) and rye (6 million tones to 9 million tones).

The EU-25 might have a market deficit for maize of approximately 1.5 to 1.8 million tones and continue to have market surpluses of other grains of around 2.3 million tones.

As a result of increasing livestock production in the EU-15 and lower maize prices, feed demand in the EU-15 is expected to expand by around 5-6 million tones. Moreover, lower prices, mainly for maize, might lead to a decrease of production of cereals by 1-3 million tones in the EU-15. Therefore, market surpluses of the EU-15 are projected to drop by 4 to 9 million tones compared to non-accession in baseline.

In the CEEC’s the favorable prices for rye and maize might lead to a significant growth of production upon accession. Rye production in particular is expected to increase due to a decline in production for the close substitute critical. As a result, cereal surpluses in the CEEC’s could reach levels of 23-27 million tones, of this approximately 9 million tones of maize, 4-7 million tones of rye, and 9-10 million tones of wheat (Figure 1).

The surpluses of wheat in the new Member Countries should not cause major difficulties, as world wheat prices would develop above EU intervention prices. Therefore, wheat should be competitive on world markets without export refunds.

Maize surpluses would be internally absorbed. On the other hand, the high amount of rye market surplus could create a serious problem on the small world markets for rye, such that intervention stocks would have to play a dominant role in long-term marketing of this cereal. One should note however that high transport costs from the main surplus regions in the CEEC’s, namely Hungary and Bulgaria, to the main deficit regions in the EU-15 could lead to sales into intervention.

Due to the special situation caused by transition, the introduction of full direct payments in the CEEC’s could lead to an initial shock, which
could affect the allocation of area and could attract additional area for cereals and oilseeds.

During transition a considerable amount of area was shifted to fodder and pasture area and to fallow land. Fodder and pasture area expanded by 4.5 million tones from 9 million tones in 1987 to 13.5 million tones in 2000, despite a substantial reduction of cattle (and sheep) numbers of approximately 49%. The amount of fallow land expanded and can be estimated at approximately 2 million tones.

Additionally a relatively large part of the area (compared to the EU-15) is used for producing low value added crops like feed potatoes. The additional land that might be available for cereal and oilseed production could be approximately 6.5 to 7.5 million tones. This land reserve may be even larger, if part of the permanent grassland is of a quality high enough to justify a conversion into arable area.

In the scenarios with full direct payments, cereals and oilseeds would attract additional area from the land reserve. The simulation results show, however, that direct payments for area would trigger considerably less additional area than the available land reserve of 6.5 to 7.5 million ha. Compared to CAP the overall gross expansion is approximately 3.7 million ha and 3.9 million ha, in CAP DP and CC Position, respectively.

Set-aside, as a supply-limiting tool with an assumed reference rate of 10%, is projected to reduce the area by 1.2 million ha and 1.3 million ha. The net effect of introducing full direct payments therefore is 2.5 million ha and 2.6 million ha, respectively.

The mobilization of less than the theoretical available additional area is due to two main reasons:
1. the level of direct payments per hectare could mobilize only a part of the potential land reserve;
2. since the base areas are established upon historical references, additional area would lead to an overshoot which would be penalized by a reduction of direct payments per hectare.

A higher volume of direct payments due to higher references (base area and base yields) in CC Position would have only a limited effect on the expansion of cereal and oilseed area. In general, direct payments appear to favor those cereals that would otherwise be less competitive (Figure 2).

High volumes of direct payments even could divert some area away from sugar beet production. This is only expected to take place, however,
only in the Baltic countries where comparably poor cost structures combine with adverse natural conditions for sugar beet production.

In 2007 the granting of full direct payments would increase production of cereals in the CEEC’s to approximately 5 million tones more than the implementation of CAP without direct payments. Most of that increase could materialize in rye and in wheat (Figure 2). Higher cereal prices on the other hand would increase production by 8.8 million tones.

These results indicate that despite the very specific situation in the CEEC’s, the introduction of full direct payments would have a significantly lower effect on production than the price effect.

Figure 2:
The Effects of Direct Payments and Set-aside on Production of Cereals and Oilseeds in the CEEC’s in 201
The low rate of effective set aside is explained by the large share of small producers in countries like Poland, Romania and Hungary, in which small producer farm between 60 and 75 percent of the arable area.

The simulation results show that the introduction of full direct payments in the CEEC’s would give a different incentive to agricultural production than in the EU-15.

Accession in the CEECs would generally increase cereal prices, in particular those for coarse grains, which would create a positive impact on profitability of cereal production. In the CEECs direct payments would tend to have an additional effect on the profitability of cereals and oilseeds. In the EU-15, on the other hand, direct payments partly compensate the decrease of intervention prices for cereals. included with the EUR 6.8 billion rural development expenditure incorporated in the CAP total expenditure figure.

BIBLIOGRAPHY

LEGAL STATUS OF AGRICULTURE JOIN VENTURING.
TYPES OF JOINT VENTURING

REGIMUL JURIDIC AL ASOCIERII ÎN AGRICULTURĂ.
TIPURI DE ASOCIERI

C. TABĂRĂ AMĂNAR*

Romanian agriculture finds itself at a crossing moment, once with the proximity of accession to the European Union in 2007. The ways of practicing it are sometimes archaically, the individual work in small surfaces leading the agricultural producer to the limit of subsistence. Therefore, legal regulations were needed to stimulate the landowners to create these private associations in order to generate efficiency in production.

First under the Law No.36/1991, than under the Law No.566/2004, the Romanian State regulated and tried to stimulate small landowners to create real agricultural farms.

Key words: agriculture, associations, co-operatives, venture companies, State.

The period between December 1989 and 1991, when according to Law No.36, which came to regulate the venture companies in agriculture, it was a period without any legislative regulations regarding types of joint venturing.

Once with the dismantling of communist structures, the collective associations were destroyed, but no other Law to regulate any other form of association was adopted. That was one of the greatest mistakes in agriculture. In Romania, soon after the falling of communism, it was a period of free destruction of what was created in the dictatorship period without having other solutions. If in other ex-socialist countries these transformations have been made step-by-step, new structures taking place of old structures, in Romania we completely destroyed the old structures, but we haven’t formed new private ones.

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The legal regulation of dissolving communist agricultural structures was hardly stipulated in 1991 under the Law No.18.

Inter co-operatives associations or of State and co-operatives were transformed under the Law No.18/1991 art.29 in private venture companies on stocks, with judicial personality.

Three months after the Law No.18/1991 was adopted, also called the Land Department Law, it was also debated and adopted the Law No.36/1991 regarding agricultural associations and other types of joint venturing in agriculture.

The Land Department Law was regulating the property, the new form of property that was to come in Romania after 1989. As a matter of fact, once with the Romanian transition from communist centralized system to a system based on a capitalist market, it was needed a regulation.

Getting back their lands, new owners needed a new legal regulation regarding the ways of exploiting the constituted and reconstituted property, and the methods of constituting themselves in venture companies and organizations, in order to put to good use the land they got back.

Under these circumstances was adopted the Law No.36/1991.

Still from its first article, the Law No.36/1991 create a bound with the stipulation of the Law No.18/1991, by the fact that landowners, getting their land back under the Land Department Law, but also any other landowner could opt for exploiting the land even in other forms than individual, a solution being the association.

But how many types of this association were, from the Law No.36/1991 point of view? According to the Law above, the association in agriculture has types or forms:

- simple association types, expressing those associations based on the agreement of two or more families;
- types of association under the stipulations of the Civil Law based on some venture companies contracts;
- “venture companies” type of association under the stipulation of Law 31/1990 regarding venture companies;
- “agricultural associations” type with judicial personality;

The simple associations, according to art.2 of Law No.36/1991, are based on some agreements between two or more families, with a view to exploiting arable lands, breeding animals, provision, stocking, conditioning, processing and selling products, services, but also to any other activities. The
form of agreement between two or more families could take the written aspect or the aspect of simple verbal agreement.

The agricultural association in its simple form does not have judicial personality, meaning that these structures are economical structures, having maybe the most simple form of organizing, the simple agreement of will between the two parties being enough to start the activity.

This family association is based on the Common Law, having as legal fundamental art.2 of Law No.36/1991.

The legal characters of this form of association are:
- the consensus character- the agreement of will between the parties;
- mutual character- the participants to the occurred judicial report (associated members) are aiming for economic profit.
- Interchangeably contract- the existence and the enlargement of the mutual obligations are known by the parties when concluding the contract and they do not depend on a future and unknown element.
- The contract with successive execution in time.

Regarded as whole, the agricultural family association is a simple subject of law, not a collective one, meaning that the venture company represents all its members in their report with the third persons.

The Civil association resembles in its way of organizing and carrying on the activities to an agricultural association family, the only difference being generated by the fact that civil association constitutes under the venture companies contract, adopted in base under the stipulation of Civil Romanian Code.

The legal fundament of the agricultural associations with judicial personality finds itself at the art.4 Law No.36/1991, which stipulates that landowners who do not use their lands (to exploit them) individual or in any other form expressed above, could form agricultural associations, with judicial personality and the title II of the Law listed above regulates especially this matter.

The agricultural exploitation consists in the way of organizing and doing agricultural work and land improvements, using machineries and installations, in the provision, processing and putting to good use agricultural and non-agricultural produces, but also in other activities related to this.

The agricultural associations do not have a commercial character, their activity being submitted to the Common Law normative and not to the commercial ones.
A remarkable thing is that arable lands could not be brought into the property of the associations, but only for using it. The landowners will maintain their property.

At 9th of December 2004 it was adopted the Law No.566 regarding the agricultural co-operatives, law that establishes the legal framework for organizing and functioning of the co-operative in agriculture.

According to this law, the agricultural co-operative “represents an autonomous association of physical or judicial person, depending on cases, a judicial person of Private Law, based on free agreement of the parties, in order to promote the interests of the members of the co-operative, in conformity with its principles”.

The adopting of this law was very important, once with the standards to which Romania wishes to reach, the State role to sustain the activities of the agricultural co-operatives, being a main one. The State gets involved in sustaining the co-operatives by acquitting the co-operative from paying agricultural taxes for first 5 years since it was constituted, by reducing the taxes on profit, by the access at subventions and at public and external funds, by excluding the custom taxes for the import of machineries and agricultural equipments. We assist to the involving of the State in a vital sector of the agriculture, new technologies of production being needed in order to push forward the Romanian agriculture towards a higher, European level.

According to the new joint venturing, the co-operatives could be: 1st level co-operative and 2nd level co-operative. The 1st level ones are associations of physical persons and those of 2nd level are for judicial persons, constituted, mostly, from the co-operatives of 1st level and judicial and physical persons wishing “the integrations on horizontal or vertical” of economic activities taking place.

It takes at least 5 members to constitute a co-operative and capital to be formed from equal social parts, the nominal value being given by the constitutive document of the venture company.

There are agricultural co-operatives of services, of providing and of selling, of processing agricultural products, of manufacturing, of exploiting and of administration of arable lands.

The activity taking place is a commercial one, and the role of these co-operatives is to score productivity in agriculture.

The base of the co-operatives is the same one as for the old collective farms, but mentioning that in a capitalist system the rules of organizing and
functioning are obligatory respected, this fact being generated by the interest and the economic independence. Among the association principles, we remember those of voluntarism in association and of opening towards the interested persons, that of democratic control of the members of the co-operatives, of economic participations, of independence of the co-operatives, of education, of instruction and of informing the members, of cooperation.

A co-operative has to maintain the regulation of the Law 36/1991 in order to constitute itself, the existence of the constitutional document concluded in its authenticated form which has value of the social parts, the statute, the name, the headquarter, the type and the level of the co-operative being obligatory.

By the statute are regulated the object of activity, the period of functioning, the condition of becoming and renouncing being a member, the excluding, the number and the value of the social parts, the way of running the co-operative and the form of distributing the benefits and losses.

The phrase “agricultural association” is added obligatory to the proper name, being forbidden this phrase to the associations without an agricultural co-operative statute.

The registering of the associations is made to the Register of Commerce of the Court where the association has its headquarter. The social capital is at least 5 millions for the co-operatives of 1st level and 100 millions for those of 2nd level.

By law are established, according to the Law No.36/1991, the rights and obligations of the members, as well as the relations between the co-operative and the members of the co-operative.

As boarding committee, we have the same General Assembly, The Board of Administration and the Committee of Auditors.

There is the possibility of creating Branch Unions of the co-operatives, from the voluntary association and branch of at least 5 such co-operatives. Thos Union does not have a working purpose, they are non-profit organizations, and they have judicial personality and are registered at the register of associations and foundations. They have the role of stimulating the cooperation, the services needed for the development and the modernization of the ways and methods for efficient development.

The association between the Branch Union constitutes the Central Union of Agricultural Co-operatives, professional organizations, non-profit, with judicial and non-political personality. These have the role of defending
the rights and interests of the co-operatives before the legislative, executive and court power and before national and abroad economic organizations.

Even if there are many resemblances with the ex-collective farms, the essential difference is that these co-operatives are non-political; the politics has nothing to do with their activity, besides old structures when the communist party was coordinating the whole activity.

The activity in the market economy obliges these co-operatives at self-managing, any other implication to the good working of the activity leads to self-destruction before the competition.

Romanian agriculture needs associations, because individual work in small surfaces brings inefficiency and result to the limit of subsistence and the proximity of accession to the EU makes us push forward the Romanian agriculture towards a level where it can sustain its existence on the mutual European market.

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**Legea nr.18/1991 privind fondul funciar din România**
**Legea nr.36/1991 privind tipurile de asocieri în agricultură**
**Legea nr.566/2004 privind cooorațiile agricole**
The builder of common agricultural policy was the Dutchman Sicco Mansholt, vice-president of The Committee and responsible for the agricultural section. Agricultural policy became a solid and independent structure parallel to the international market trend. Common measures should be and it were financed from a common budget. PAC started to work since 1964 when the prices were standardized. Prices were fixed at a high level, to advantage and stimulate the producer, and that generated increases of agricultural production.

Key words: common agricultural policy, agricultural quota, reform, agriculture, agricultural products.

Common agricultural policy is more than 45 years old, being substantiate as a part of the Rome Treaty (1957), through which it was build up Economic European Community, and the 39 article (modified through the following treats) was establishing the objectives which belongs to common agricultural policies at that time, namely:
- Productivity growth in agriculture;
- To assure a certain life standard for the agricultural population;
- Market stabilization;
- Supplying security guaranteed;
- To assure reasonable prices in delivering to consumers;

Common agricultural policy suffered some major changes in time, who’ll continue in the future because of the permutations from the Union.
At 15 December 2001 was formed „Laeken declaration” of European Committee, through which it’s pointed out the decisive role of the agriculture inside of the Union and the fact that is the only controlled policy at communitarian level.

Agenda 2000, adopted in 1999- march, (Berlin) contains applicable elements until the end of 2006. According them, the agriculture may benefit by a stable legislation until the end of 2006.

At once with new extension waves, with the situations created inside the European Union States, was established the PAC should change, and the main aspects should be:

- Union extension in the next future;
- Next negotiations from OMC (under higher pressure in favor of liberalization);
- Economical, social, ecological and regional problems, some of them without a solution;
- Solid development and the applying of European agricultural model;
- Changes required in agriculture;

The 2000-2001 years were very agitated for European agriculture, (ESB crisis, dioxin scandal or the images seen in the fight to food-and-mouth disease., and all of this determined hot debates to the way the agriculture and agricultural policy is managed.

European agriculture, like all the economy, in trouble, had bet on productivity and quantity of products growth. Huge growth of agricultural products was not exactly a very good thing for European common agriculture. Overproduction could not be exported because of higher production costs, and it wasn’t attractive for the rest of the states.

Major growth of agricultural production, low internal consumption – because of imports, lack of massive exports determined emerged internal stocks and higher costs. It was introduced quota system (for milk, sugar, etc) to manage more easy the offer.

The need for agricultural products forced the officials of member’s states to give financial facilities for agricultural producers, to accord subventions. With this support, they were directly interested to produce more, determining overproduction. The production growth was meaning growth of common agricultural policy financing. In the ’80-s, to stop the overproduction, it was created the production quota system.
Quota represents maximum quantities admitted for production of certain goods (milk, fruits, sugar, potatoes, bananas, olive oil, tobacco, etc). Quota is not established by each state in individual way, is fixed for all states form the European Community, and next step is negotiation and allocation for each country, each farm, at national level. It is not permitted to break the quota, the producer who exceeds the plan will be financially punished, or the intervention price for the next year will be reduced.

Agricultural markets are unstable and with variable prices, the producers being unable to adapt the production in accordance with the current demand, and the system of limited production has an important role to stabilize the agricultural market.

Elimination of agricultural quota, for milk by way of example, would produce an important growth in favorable regions for this activity.

Romania, once joined in 01 January 2007, is forced to adopt and introduce the quota system. In fact, it means to accommodate the Communitarian Aquis for Romanian legislation and it’s application.

Through quota system, Romanian farmers may produce certain maxin quantities, and if it’s higher, they would be penalized. Fixing the national quantities means that overproduction attracts sanctions like lower intervention prices for the next year. This control may be obtained through leaving the fields uncultivated or changing the production into biomass through producing of the necessary raw materials for this, receiving some financial support in compensation. Farmers could receive compensations based on the number of domestic animals or the dimensions of the cultivated field.

But look which are the products with established quota and some aspects looking the price or other reform ways.

**Arable cultures** (cereals, olives seeds, proteic cultures, linum)

Quota is established by fixing the dimensions of the fields cultivated, at regional level, and the farmers are forced to renounce at 10% of production starting with 2000/2001 season for the surfaces with more than 12 tons production.

**Milk and milk products**

The producers who pass over the quota would be penalized with money meaning 115% by the intervention milk price for all it means surplus. It’s possible to quit the quota system after 2006.

**Horned cattle, cattle meat and veal and other derived products**
If an animal disease appears, there are some special measures adopted: there is more financial help for growing the stock at the producer if the market price is lower than 103% under the price of 2224 Euro/ton male carcass.

Potatoes for amidon producing
It’s fixed by the dimensions of the cultures, 1.172.148/ton at communitarian level for 2001-2002 period, with 3% lower than 2000-2001.

Dry fodder
There are help for 443.500% fodder ton, obtained by natural dry. If there are overproductions, direct payments are reduced.

Fresh fruits and vegetables
It is accorded help for organizing the agricultural production for 4.1% of all the output destined to communitarian contribution at operational funds:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Tomatoes</td>
<td>8.251.455 tons</td>
</tr>
<tr>
<td>Peaches</td>
<td>539.000 t</td>
</tr>
<tr>
<td>Pears</td>
<td>104.617 t</td>
</tr>
<tr>
<td>Oranges</td>
<td>1.500.236 t</td>
</tr>
<tr>
<td>Small cedrate fruits / processing</td>
<td>384.000 t</td>
</tr>
<tr>
<td>Lemons/processing</td>
<td>510.600 t</td>
</tr>
</tbody>
</table>

Hop
Until 2003 there were compensations for the producers who were quitting de production of hop, in equal values with the incoming obtained if the hop would be produced.

Hemp and linum
Any help will be accorded in limit of 75.250 tons annual yield for long linum fibres and 135.900 tons annual yield for short linum fibres or hempen fibres.

Eggs
Special measures could be adopted in situation of major fowl disease.

Pork
Financial help is accorded for growing of private stock, because there were no public acquisitions in the last 20 years. Special measures could be adopted if there are centers of disease.

Rice and derived products
Each member country has a certain surface for raising the rice.

Sugar
Sugar beet producers have guaranteed incomes because of fixed acquisition prices of beet fixed to sugar producers by The Committee. Each sugar producer has an allocated quota A and B, in quantities determined by the Committee for each member state. The quota is established for 2001-2006 period.

Tobacco
All the producers who wanted to renounce to grow the tobacco were rewarded.

Wine grapes, wine and other grapes products
There are rewards for who quit producing grapes and help is accorded to whom is converting wine surfaces, for maximum of 50% of total costs. Authorization of planting the grapes is accorded for 2% of all communitarian existing vineyards.

Fowls and meat fowls
Special measures are taken in case of diseases.

Romania must pass over the important year 2007 as good as it gets. Until then there is the obligation to introduce Communitarian legislation in agricultural field to be sure of the good economical and political results.

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INSURANCE OPTIMIZATION UNDER CATASTROPHIC RISKS

OPTIMIZAREA ASIGURĂRIILOR ÎN CONDIȚII DE RISC CATASTROFIC

CODRUȚA CHIŞ*, M. CHIŞ**

In this paper, we present an algorithm for determining the minimal premium and the optimal distribution in an insurance optimization problem in presence of catastrophic risks.

Key-words: insurance optimization, catastrophic risk

INTRODUCTION

In this paper, we are dealing with the problem of finding safe coverages for companies, which are insuring property against catastrophes. The purpose is to lower the expected risk of insolvency. We suggest a nonprobabilistic approach based on catastrophe scenarios and rational planning of the distribution of coverages between companies insuring regional property against some kind of catastrophes. Our main goal is to find the minimal premium associated with an optimal distribution of coverages. To this end we describe an algorithm which allows to approach step by step the minimal premium and the optimal distribution.

INSURANCE OPTIMIZATION PROBLEM

Let us imagine that a geographical region G is divided into a number of zones Gi, i=1,...,N. Each zone contains a number of properties with total value of D_i. A group of insurance companies, C_1, ..., C_m, insures the properties in the region G against some catastrophic events, like earthquakes, floods, tornadoes, etc. We shall denote by x_{ij} the share of coverage of the properties in the zone G_i by the company C_j. Then we have

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** UVT, Faculty of Mathematics and Computer Science
We shall consider thus the distribution matrix

\[ X = \begin{pmatrix} x_{11} & \cdots & x_{1M} \\ \vdots & \ddots & \vdots \\ x_{N1} & \cdots & x_{NM} \end{pmatrix} \]  

Let \( K_j \) be the initial capital of the company \( C_j \) and \( c_{ij} \) the unit transaction cost, paid by the company in order to insure a unit of property in the zone \( G_i \). We shall presume that the premium for a unit of insured property is the same for all the properties in the region \( G \) and all companies, and that in each zone \( G_i \) only the full damage, of total cost \( D_i \), is insured.

A catastrophe can affect several zones \( G_i \). The set of indices \( i \) of affected zones represents a catastrophic scenario. We shall presume that in the region \( G \) several catastrophic scenarios are admissible and let \( \mathcal{I} \) be the set of such admissible scenarios. The risk of company \( C_j \) with respect to the scenario \( I \) is the difference between the company’s expenditure and its income:

\[
r_j^I(p, X) = \sum_{i \in I} D_i \cdot x_{ij} + \sum_{i=1}^{N} c_{ij} \cdot x_{ij} - \left( K_j + \sum_{i=1}^{N} p \cdot x_{ij} \right) \]  

In the previous relation, the risk is dependent on the insurance premium \( p \) and the distribution matrix \( X \). The company \( C_j \) survives under the scenario \( I \) if the following inequality holds:

\[
r_j^I(p, X) \leq 0 \]  

A pair \( (p, X) \) guarantees survival if (4) holds for any \( j = 1, M \) and any \( I \in \mathcal{I} \). We shall study the following insurance optimization problem:
Determine the minimum premium $p$ for which there exists a distribution matrix $X$ such that the pair $(p, X)$ guarantees survival of all companies under all admissible scenarios:

$$\min p$$

$$r_j^I(p, X) \leq 0, \quad (\forall) j = 1, M, I \in \mathcal{I}$$

$$p \geq 0, \quad X \in \mathcal{X}.$$  

The set $\mathcal{X}$ represents the set of all distribution matrices. If there exists a pair $(p, X)$ satisfying the restrictions (6) and (7), then the optimization problem (5)-(7) has solutions. Let $p_*$ be an optimum premium, i.e. a minimum value for the problem (5)-(7). For every solution $(p_*, X_*)$ of problem (5)-(7), we shall call $X_*$ an optimal distribution matrix, and we shall denote by $\mathcal{X}_*$ the set of optimal distribution matrices.

**THE SOLUTION ALGORITHM**

We consider now the following algorithm for solving the insurance optimization problem.

At step 0, we take $p^1=0$ and choose an arbitrary distribution matrix $X^1$. For $k \geq 1$, we transform at step $k$ the solution $(p^k, X^k)$ into $(p^{k+1}, X^{k+1})$ as follows: We define $p^{k+1}$ to be the first component of

$$\left(p^{k+1}, U^{k+1}\right) - \text{a solution of the problem}$$

$$\min p$$

$$p \geq p^k,$$  

$$\sum_{I \in \mathcal{I}} \sum_{j=1}^M r_j^I(p, U) \cdot r_j^I(p^k, X^k)_+ \leq 0,$$  

$$U \in \mathcal{X}.$$
The notation in (11) stands for
\[ r_j^I(p^k, X^k)_+ = \max \{0, r_j^I(p^k, X^k)\}. \] (11′)

Next, we compute \( X^{k+1} \) from
\[ X^{k+1} = X^k + \tau_{k+1}(U^{k+1} - X^k), \] (13)

where
\[ \tau_{k+1} = \arg \min_{\tau \in [0,1]} \left\{ \sum_{I \in \mathcal{M}} \sum_{j=1}^M r_j^I(p, X^k + \tau(U^{k+1} - X^k))_+^2 \right\}, \] (14)
i.e., the number \( \tau \in [0,1] \), for which the expression in (14) has minimum value.

**Remark.** Since \( r_j^I(p, U) \) is negative for large values of \( p \), (11) holds for large \( p \)'s. Hence, the feasible set of problem (9)-(12) is nonempty and the problem has a solution. The algorithm is thus correctly defined.

**Proposition.** Let \( p^1 = 0 \), and let \( X^1 \) be an arbitrary distribution matrix. Further, let \( (p^k, X^k) \) be defined by algorithm (8)-(14). Then \( p^k \) converges to the optimal premium and \( X^k \) converges to the set of optimal distribution matrices:
\[ \lim_{k \to \infty} p^k = p_*, \lim_{k \to \infty} \text{dist}(X^k, X_*) = 0 \] (15)

In (15),
\[ \text{dist}(X^k, X_*) = \inf \{ |X^k - X_*| : X_* \in X_* \}. \] (16)

The algorithm (8)-(14) is a simple risk aggregation strategy, sequentially implemented. At each step \( k \), the companies update the
premium rate $p^k$ and the distribution matrix $X^k$. One may assume that the updated premium $p^{k+1}$ is not smaller than $p^k$. For all plausible $p \geq p^k$ and distribution matrices $U$, the companies analyze the aggregate risk

$$R^k(p, U) = \sum_{l=3}^{m} \sum_{j=1}^{n} r^l_j(p, U) \cdot r^l_j(p^k, X^k)_+, \quad (17)$$

and they choose $p^{k+1}$ as the minimum premium such that there exists a distribution matrix $U^{k+1}$ such that the aggregate risk $R^k(p^{k+1}, U^{k+1})$ is nonpositive.

**A NUMERICAL EXAMPLE**

We shall consider a regional model with $6 \times 6$ zones for which the properties values are given in the following table:

<p>| | | | | | |</p>
<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>8</td>
<td>22</td>
<td>21</td>
<td>26</td>
<td>20</td>
</tr>
<tr>
<td>10</td>
<td>10</td>
<td>25</td>
<td>24</td>
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<td>20</td>
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<td>10</td>
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<td>17</td>
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<td>16</td>
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<td>15</td>
<td>16</td>
<td>7</td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td>7</td>
<td>10</td>
<td>14</td>
<td>10</td>
<td>10</td>
<td>9</td>
</tr>
</tbody>
</table>

The region is insured by a group of 4 companies. The initial capitals of these companies are $K_1=K_2=100$, $K_3=120$, $K_4=130$. There exist 8 admissible scenarios:
We assume that the initial diversification of insurances is uniform, i.e., $x_{ij}^1=0.25$, for every $i=1,36$ and $j=1,4$, and also that the transaction costs are identical for all companies and all zones – $c_{ij}=10$.

Running the algorithm (8)-(14) over a computer, the procedure stops after 21 steps, when all total risks of the companies equal zero. The dynamics of the premium $p^k$ and the total risks $\gamma_j^k$ is shown in the following table:

<table>
<thead>
<tr>
<th>Step</th>
<th>Premium $p^k$</th>
<th>$\gamma_1^k$</th>
<th>$\gamma_2^k$</th>
<th>$\gamma_3^k$</th>
<th>$\gamma_4^k$</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.00</td>
<td>389.250</td>
<td>389.250</td>
<td>229.250</td>
<td>150.000</td>
</tr>
<tr>
<td>2</td>
<td>0.00</td>
<td>338.250</td>
<td>338.250</td>
<td>178.250</td>
<td>283.649</td>
</tr>
<tr>
<td>3</td>
<td>0.13</td>
<td>300.826</td>
<td>300.826</td>
<td>278.019</td>
<td>240.129</td>
</tr>
<tr>
<td>4</td>
<td>2.70</td>
<td>115.619</td>
<td>115.619</td>
<td>81.579</td>
<td>102.138</td>
</tr>
<tr>
<td>5</td>
<td>2.76</td>
<td>104.009</td>
<td>104.009</td>
<td>98.618</td>
<td>91.407</td>
</tr>
<tr>
<td>6</td>
<td>4.29</td>
<td>33.234</td>
<td>33.234</td>
<td>27.484</td>
<td>30.849</td>
</tr>
<tr>
<td>7</td>
<td>4.39</td>
<td>28.760</td>
<td>28.760</td>
<td>28.058</td>
<td>27.211</td>
</tr>
</tbody>
</table>
As a result of the algorithm, we have determined the optimal premium \( p^* = 6.36 \) and an optimal distribution of the insurance contracts among the companies. The optimal proportions of insured properties in all zones can be seen in the following table:

<table>
<thead>
<tr>
<th>Zone</th>
<th>Property 1</th>
<th>Property 2</th>
<th>Property 3</th>
<th>Property 4</th>
<th>Property 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.221</td>
<td>0.221</td>
<td>0.221</td>
<td>0.221</td>
<td>0.221</td>
</tr>
<tr>
<td>2</td>
<td>0.222</td>
<td>0.222</td>
<td>0.222</td>
<td>0.222</td>
<td>0.222</td>
</tr>
<tr>
<td>3</td>
<td>0.267</td>
<td>0.267</td>
<td>0.267</td>
<td>0.267</td>
<td>0.267</td>
</tr>
<tr>
<td>4</td>
<td>0.290</td>
<td>0.290</td>
<td>0.290</td>
<td>0.290</td>
<td>0.290</td>
</tr>
<tr>
<td>5</td>
<td>0.221</td>
<td>0.221</td>
<td>0.221</td>
<td>0.225</td>
<td>0.225</td>
</tr>
<tr>
<td>6</td>
<td>0.222</td>
<td>0.222</td>
<td>0.222</td>
<td>0.222</td>
<td>0.222</td>
</tr>
<tr>
<td>7</td>
<td>0.267</td>
<td>0.267</td>
<td>0.267</td>
<td>0.267</td>
<td>0.267</td>
</tr>
<tr>
<td>8</td>
<td>0.290</td>
<td>0.290</td>
<td>0.290</td>
<td>0.290</td>
<td>0.287</td>
</tr>
<tr>
<td>9</td>
<td>0.221</td>
<td>0.225</td>
<td>0.221</td>
<td>0.225</td>
<td>0.225</td>
</tr>
<tr>
<td>10</td>
<td>0.222</td>
<td>0.222</td>
<td>0.222</td>
<td>0.222</td>
<td>0.222</td>
</tr>
<tr>
<td>11</td>
<td>0.267</td>
<td>0.267</td>
<td>0.267</td>
<td>0.267</td>
<td>0.267</td>
</tr>
<tr>
<td>12</td>
<td>0.290</td>
<td>0.287</td>
<td>0.290</td>
<td>0.287</td>
<td>0.287</td>
</tr>
</tbody>
</table>

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REFERENCES


Obreja is a village from North-East of Caraș-Severin county, with 700 family households which have land in surface of 6.200 ha. The family private farms have the following structure: 50% arable, 25% natural hay fields, 5% vineyards, 5% woods, 5% pastures, 5% trees, 5% uncultivated. The Obreja locality frame itself in an area having medium conditions of development.


Die landwirtschaftlichen Familienbetriebe haben folgende Struktur: 50% Ackerboden, 25% natürliche Heuwiesen, 5% Weinberge, 5% Wälder, 5% Weiden, 5% Bäume, 5% Brachland.

Auf eine Fläche aus 3.130 ha werden Kulturpflanzen angebaut. 1.300 Hektar sind angebaut mit Mais, 1.300 Hektar sind vorbehalten für Bohnen (die am Mais anwachsen), 800 Hektar sind verteilt auf Kartoffeln, auf 400 Hektar baut man Kürbisse an, die das Futter bilden und aus den Kernen macht man Öl, 120 Hektar sind mit roten Rüben, 120 Hektar sind mit Sonnenblumen, 80 Hektar sind mit Tomaten, 80 Hektar sind mit...


Die privaten landwirtschaftlichen Familienfermen aus Obreja verfügen über entsprechende Herstellungsquellen, welche im Herstellungsprozess entsprechend koordiniert und durch Anwendung
einiger hochwertigen Technologien verwendet zu des Entwicklung effizienter Tätigkeiten mit niedrigen Produktionskosten führen.

Während der analysierten Periode haben die privaten landwirtschaftlichen Familienfermen aus der Gemeinde Obreja ihre Tätigkeit mit ein Gewinn von 100 Milliarde lei beendet.

Die Ortschaftanalyse dient zum Abschätzen einer Situation, als Basis für das Ausarbeiten von strategischen Programme. In der Analyse werden als erstens die innere Eigenschaften der Mikroregion, die starken und schwachen Punkte geschätzt. Dann, werden die äusseren Einflüsse analysiert. Die positiven äusserlichen Effekte sind als Möglichkeiten betrachtet, und die negativen als Gefahren oder Drohungen. Das Wesen der Analyse ist dass man begründete Antworten zu den hervortreten Problemen sucht und findet.

Die starken Punkte sind die folgenden: in der ländlichen Umwelt befinden sich wichtige natürliche Quelle: Bodenschätze, Untergrundschätze, Landschaften; wir finden Bauten aus wirklichem Wert welche von Leuten über Generationen ausgearbeitet waren; die dauerhafte Entwicklung versucht die Beziehung zwischen Dorf und Stadt in eine Kooperation zu verwandeln; die Erweiterung der städtischen Umwelt hat das ländliche Spezifikum nicht ganz betrübt; durch Obreja überquert die einheimische Landstrasse und die Eisenbahnlinie; die Bodenqualität ist gut, man hatte gute Ernten sogar in den Perioden der Dürre aus den letzten Jahren; das Privateigentum beträgt die Mehrheit der Gesamtgrundstücke; das trinkbare Wasser aus dem Grundwasser ist von einer hoheren Qualität besonders nach dem Zumachen des Werkes in Oțelu Roșu; es gibt eine grosse Zahl von Tieren, ins besondere der Rindvieh und Schweine, die auf den was Markt in Oțelu Roșu und Caransebeș verkauft werden; die Versorgung der Wohnungen mit Strom, fließendem Wasser, Methangas, Telefonverbindungen; die ländliche Landschaften bieten touristische Attraktionen an.

Die schwachen Punkte sind die folgende: man stellet fest, dass einige Gebäude verlassen sind wegen des Auszugs von Dorf zu Stadt; die Heizung ist unangemessen; die Rathäuser besitzen keine landwirtschaftlichen Maschinen; es gibt Streitigkeiten für Gelände; das Werk in Oțelu Roșu hat zugemacht und viele Leute sind arbeitslos, ein Teil da von haben sich Arbeitsplätze in Ausland gesucht; es gibt keine
Lebensmittelindustrie die die örtlichen Rohstoffen, sowohl aus Pflanzen als auch aus Tieren benützen soll; die Einkommen sind sehr niedrig.

Die Möglichkeiten sind die folgenden: in Hinblick der Integration Rumäniens unterstützt die Europäische Union einige Investitionen in den folgenden Bereichen: die Industrialisierung der Milch und des Fleisches.

Die Risiken sind die folgenden: einen großen sind Teil von Handwerken werden nicht mehr praktiziert; es gibt soziale Spannungen als Folge der Erhöhung der Arbeitslosigkeitsrate.


Die Aufgabe des zweiten Projects ist die Gründung eines Zentrums für die Sammlung und Verarbeitung der Milch und Milchprodukte (Schafskäse, Molkenkäse, Käse), die Hauptgründe sind: die höhere Zahl der Rindvieh aus der Ortschaft und der Mangel an einem entsprechendem Punkt für die Sammlung und Verarbeitung dieser. Die Ziele sind die folgenden: die Gründung einer Einheit für die Sammlung der Milch, das Organisieren und Einrichten einer Einheit für die Herstellung der Milchprodukte, die Entwicklung der Marketingfunktion für Verwertung der Produkte und die Verschiedenheit der Produkte. Diese Ziele können verwirklicht werden durch: das Schöpfen und das Einrichten eines entsprechenden Raums für das Ausüben der Tätigkeit, entsprechende technische Ausstattung, die


Ein anderes Projekt ist die Gründung einer Einheit für das Trocknen und Erhalten der Obst (Äpfel, Birnen, Pflaumen).

Man kann also schlussfolgern, dass die Ortschaft Obreja sich in einer Zone befindet, die über mittleren Entwicklungsbedingungen verfügt.

BÜCHERKUNDE

1. **BRÎNZAN MARIA OANA** – Dezvoltarea rurală în zona periurbană a Aradului – teză de doctorat – Timișoara 2001

The cultural strategy of the Timis County has proven to be a very successful means of cultural management. It has positively influenced the development and preservation of culture in the rural areas of the County.

Keywords: Cultural management

FOUNDATIONS OF THE PUBLIC CULTURAL POLICIES IN THE TIMIS COUNTY:

The cultural strategy of the Timis county has been approved by the Timis County Council on April 29th, 2002, for the 2002-2005 time frame, by the County Council Decision 25/2002. As an administration instrument, this document is aimed at defining the set of strategic directions for the cultural development specific to the Timis area, on a medium term. The authors of the strategy opted for several socio-cultural mechanisms specific to the public cultural policies from the democratic states, as: social dialogue, interactivity among administration - civil society – participants to the act of culture, the voluntariat, and the self-responsibility. As a first exercise of this type at national level, the strategy was elaborated with the support of the Intercultural Institute of Timisoara, in the ambit of a theme project promoted by the same.

The Romanian associations and foundations with legal personality, as well as other non-profit NGOs, involved in the initiation and organization of cultural programs and projects, are able to receive subsidies from the state or the local budget. The subsidies are used exclusively for the meeting (partial or total) of the costs of the cultural programs and projects that are organized on top of the minimal or legal obligations of ministries and other central or local organs, or the institutions in their charge.

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** Timis County Council
Any cultural policy needs to pay a special attention to the non-governmental sector, an aspect that can be found – in our view – in the activity of the Timis County Council. For almost a decade, the Timis County Council budget has been the source of finance for cultural and sports programs, under direct coordination and in cooperation with the cultural institutions belonging to the County Council or with other cultural institutions in the county. These cultural events are reunited yearly, beginning with 1996, under the title “The Agenda of Cultural Events”. Starting with 1999, the subject area of the same has been expanded, currently having the “Agenda of Cultural and Sports Events”. The Agenda is elaborated with the support and under the direct coordination of the Commission for Culture, Education, Scientific Research and Relationship with the Cults of the Commission for the Development of the External and Euroregional Relations and of the Commission for Services or the population, commerce, sport and recreation from the Timis County Council. While the names of the commissions involved in the development of this instrument of work may change with the time, what matters is that there is a constant interest towards the permanent development of this coherent instrument of work. The legal regulations contribute, in most of the cases, to an ordering through their contents (HG 49/2003 concerning the subsidizing of NGOs and others associations and foundations that develop cultural activities).

“THE CULTURAL AGENDA”, INSTRUMENT OF CULTURAL STRATEGY:

The Agenda elaborated at the level of the Timis County Council has evolved in time, both in the aspect of the activity fields supported through this financial instrument, as well as that of the financial volume allocated for cultural and sports activities. The Agenda has been initiated as an instrument for synchronizing the cultural institutions belonging to the county, while in 1999 it was doubly extended (theme-wise – through the absorption of the sports and youth field, and partnership-wise, through the inclusion in the agenda of the activities initiated by the local councils, most of them in the countryside, hence without enough resources for an autonomous cultural activity). The extension continued in the following years towards the cross-border cooperation (in 2000 in the ambit of the
DKMT Euroregion, but also of that of Romanian communities abroad), civil society (2001) and education at all levels (2002).

As far as the financial dimension is concerned (illustrated by the next table), one can see that the evolution of the total amount of money allocated through the *Agenda* has a positive trend.

![Total spendings (millions lei)](chart)

A US$ expression of the amounts above shows a time period of considerable regress, but we consider this aspect to be less illustrative for the evaluation of the economic efficiency of the *Strategy* as it is for the general economic difficulties suffered by the Romanian society in the years concerned, hence the socio-cultural field.

**ANALYSIS OF THE EVENTS ORGANIZED BETWEEN 2002-2004**

Evaluating the great diversity of events reunited and supported by the county authority through the Agenda, we can note the role of the cultural *Strategy* adopted for the Timis County, considering the results obtained on the following *strategic directions*:

1.) *Stimulations of the participation of the citizens to the cultural-artistic act, through the provision of a quality cultural environment* (general objectives: stimulation of the specific activities and institutions involved in the cultural education of the citizens, development of the specialty education, the promotion of young talents, the increase of the access to culture of the citizens, the development of the cultural and artistic
life in the rural areas and neighborhoods, the inclusion of the socially marginalized groups in the cultural environment, the provision of an adequate cultural infrastructure, etc).

The following graph shows that, from the total of 680,000 inhabitants of the Timis County, at the end of 2004, 550,000 are the (potential) beneficiaries of activities financially supported by the Timis County Council.

The achievement of a cultural policy and the development of cultural and artistic life in the rural areas could not have come to life in the absence of factors of local action at least at the level of rural councils where existed the main problems ascertained by previous studies and where the impact with a previous experience was not positive. The passage from the obligation to participate in any conditions and in all times to a dictated “cultural” act to the voluntary and necessary participation to the cultural act as an objective necessity is more difficult to accomplish in a community conservative in principle, hence at the beginning finding the local factors of action has been at least difficult and full of “surprises”.

While the current legislation was not coherent, recourse was made to the implementation of the notion of “referent cultural” (cultural officer), with the aim to officialize the person the person that would have, at the local community level, the specific responsibilities involved by the dissemination of the cultural act. At the level of the rural local communities, the cultural officers started to undertake the specific activity with noticeable results from the end of 2000. The example given by them strongly persuaded both the population that got involved in the local cultural activity, as well as the
decision factors at the level of other communities who understood their importance. The accomplishment of the local cultural strategy became in this context strongly linked with the number and quality of cultural officers.

**Cultural officers in the Timis County**

2.) The support of the development of a diversified cultural life (general objectives: the development of the show art, the development of the written culture, the development of the visual arts, the development of the amateur art, the support of the development of amateur organisations and NGOs active in the cultural field, the promotion of new forms of cultural expression, the guarantee of cultural cooperation at county level through the promotion of partnerships and co-productions among several cultural actors, and the promotion of partnerships among decision factors in the cultural field).

As a first conclusion it can be stated that the most constant and in the same time the most spectacular rise occurred in the field of the cooperation with the NGOs – with the observation that most of these work in the urban area, the cultural offer in the rural areas remaining only partly met.

An analysis of this cooperation from the point of view of the age groups place the focus on the 16-25 year olds, mostly the pupils and students having special interests in achieving partnerships in the cultural field concerning their specific pursuits (theater, music – ranging from
classical music to electronic music, poetry evenings, shows in unusual locations, etc).

The promotion of partnerships at inter-county level is a problem not yet solved, but showing several important aspects:

- The lack of cultural centers at county level that would manage such an activity of coherent promotion of the cultural activity.
- The tendency of excessive centralization at the level of central administration while the cultural legislative structure is elaborated on inelastic principles (there is no law providing the necessity of cultural actors at the level of local communities, there is no obligation of allocating funds with cultural destination while Law 215/2002 provides clear attributions in this field for local communities, etc).
- The issuance of funds through the county council budgets for such activities becomes an absurd fight at county level, where only the president of the county council (if he has the necessary European spirit and opening) and the specialty commission get involved while the yearly State budget law totally ignores it, etc.

3.) **The maintenance and employment of the cultural patrimony and tradition** (general objectives: support of the activities of conservation, restoration and employment of the movable cultural patrimony, the
employment at the maximum extent of the immovable cultural patrimony, the development of the activities of research, conservation, employment of the popular tradition and creation)

The existence in the ambit of the Centre of Culture and Art of the Timis County (a modern structure, not officially recognized through Law 292/2003 concerning the organization and functioning of the cultural institutions, hence the obligation to solve several aspects of the cultural activities through “creative intelligence”) of a specialized section employing specialists who publish the results of their research in a journal financed on a three-month basis by the County Council, the orientation of the products of another section (professional ensemble of song and dance “Banatul”) towards the employment of a part of the movable cultural patrimony and the education through the Popular Art School (self-financing section of the Centre for Culture and Art of the Timis County) of the young generation can be the premises of an efficient structure in the field but that have to be carefully supervised when authentic popular tradition is involved.

Another important direction was the co-financing action for the establishment of local museums in the rural areas that have as an adjacent objective ethnography sections with local specific where, through donations from the local community, have been gathered with the help of the young generation a series of objects relevant for the whole area or where instruction camps have been organized employing local artisans. The reorganization on modern principles of the Museum of the Banat Village as an independent institution and the possible relocation of the ethnography section of the Museum of the Banat represent decisive actions for the structuring of a new institution with a specific activity for the immediately upcoming period for the better development of this strategic direction.

4.) Maintenance of the multiculturality as a key element of the social cohesion in the Timis area (general objectives: support of the development of the associative cultural life of the national minorities; promotion of the development of intercultural projects). A simple enumeration of the actions undertaken in this strategic direction makes obvious the special attention this field received in the time period 2002 – 2005, the results continuing to positively mark the cultural life of the Timis county.

5.) The integration of the Timis area culture in the national and international circuit of values (general objectives: development of the
capacity of international cultural cooperation through the creation of a political and administrative framework for the promotion of the cultural offer, the promotion of the cultural offer through means specific to the business environment and the integration of the cultural offer providers into the European cultural networks, the affirmation of the cultural and artistic values of the Timis area in the national and international cultural circuit, the support of the participation of local cultural actors at national and international cultural events, the introduction of the local cultural patrimony into the tourist circuit, the development of the Euroregional cultural cooperation, the promotion of the cultural exchanges in the DKMT Euroregion).

An important activity that became well known in the cultural Euroregional landscape is the “Folkloric Caravan of the Pre-University Youth of the DKMT”, that a week yearly presents folkloric shows in several communities in every member country of the Euroregion, reuniting representatives from all the national minorities of each member state of the Euroregion. The Timisoara Cultural Centers of the EU member states have been a permanent partner in the promotion of the cultural artistic values of the Timis area into the national and international cultural circuit, facilitating the link with the countries of origin or organizing important cultural events themselves.

GENERAL CONCLUSION

Taking into consideration the above, it can be stated that the Cultural Strategy of the Timis County for 2002 – 2005, at more than half of the time allocated for its implementation, is not only a coherent action plan, but can be as well adopted and adapted as an action model. It is but a very important step in the development of the Timis culture in its plenitude, the conclusions of the analysis according to the proposed strategic dimensions being the premises in the elaboration of a motivated cultural strategy for the following period as well.

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The national market of milk in the context of the accession to the European Union

Piața Națională a Laptelei în Contextul Integrării în Uniunea Europeană

Tabita Adamov

Milk and dairy products represent one of the most important domains of livestock breeding and food industry sector. Thus, it is necessary to elaborate a strategy within this domain which, by following closely the requirements of EU, will permit, until 2007 (the date of accession), the organization of a viable and competitive sector. The strategy will comprise a very detailed plan for the period 2004-2007, referring both to the harmonisation of European legislation and the institutional organization, as well as to a plan concerning the reorganization and consolidation of production farms.

Key words: milk, products, accession to the EU

Of the agricultural products, the milk constitutes the most difficult and delicate problem which needs to be solved. It is that difficult because in the last 14 years very little has been done in this respect as compared to the other European countries, and delicate because decisive and immediate, even drastic measures must be taken. In our country, the main source of milk is represented by the bovines which provide 95% of the entire milk production.

After 1990, the national market of milk has been characterized by a permanent and oscillatory evolution of its main elements. The revolution of 1989 has brought significant changes both to the entire national economy, in general, and to agriculture, in particular.

The new property type of the agricultural exploitations, appeared as a consequence of privatization, as well as the abolition of national farms, also had important effects on Romanian livestock breeding. In this period, unprecedented, a large number of animals have been slaughtered.

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The number of taurines was in a constant decrease until 2002, when a slight increase has been registered. In comparison with 1990, the number of milk cows (2 468 thousand headcount) decreased by more than 700 000 until 2002 (1 746 thousand headcount). In the last two years, a tendency of continuous growth has been registered and in 2004, according to the data provided by, the number of milk cows was of 1 850 thousand headcount. This tendency is still maintained at present, having future perspectives as well.

When speaking about the distribution of milk cows on activity sectors, if in 1990 most of them were exploited in the national industrialized centres, nowadays, the weight of the state sector is very reduced, prevalent being their exploitations within the private sector which holds 98,3% of the total effective. In Romania, the average dimension of dairy farms is of 1,4 headcount, as compared to 22 cows which represents the dimension of European farms. In order to achieve the milk quota (3 057 000 tons), it is necessary an effective of 826 216 headcount, which is entirely covered by the existing one. The surplus of effective, remained after the quota of milk was reached, shall provide the milk for technological and individual consumption.

Due to the programmers of amelioration and genetic improvement of the biological material needed for reproduction, in 2025 the number of bovines will be expected to increase by 17%, while the number of milk cows will decrease by 6%, in favour of the average production growth per cow with 26% as compared to 2004.

If we relate Romania to the other 10 countries which acceded to the European Union in 2004, from the effectives’ point of view, we rank second, after Poland, which at the moment of accession owned an effective of almost 3,5 million milk cows. The other countries, new members of EU, excepting the Republic of Lithuania, with an effective of 600 thousand headcount, the Czech Republic – 530 thousand headcount and Hungary - 440 thousand headcount, hardly have any importance on the market of the European milk producers.
Cows number in Romania and UE, 2003

Table 1

<table>
<thead>
<tr>
<th>Countries</th>
<th>UE-25</th>
<th>UE-15</th>
<th>UE N -10</th>
<th>Poland</th>
<th>Lithuania</th>
<th>Czech Republic</th>
<th>Hungary</th>
<th>Romania*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cows number</td>
<td>24,4</td>
<td>19,5</td>
<td>4,9</td>
<td>3,5</td>
<td>0,6</td>
<td>0,53</td>
<td>0,44</td>
<td>1,85</td>
</tr>
</tbody>
</table>

Source: FAO, * MAPDR

Milk is the only nutriment in the case of which the domestic production has constantly increased despite the fact that until 2002 the effectives decreased, the growth being determined by the accelerated increase of the average production by 60%.

Statistical, Romania’s milk production has registered an ascending evolution, in 2004 reaching the value of 56 000 thousand hectoliters, with almost 14 000 thousand hectoliters higher than in 1990 (41 195 thousand hectoliters). This growth was due to a drastic decrease of the industrialized production of milk, from 5,2 million tons in 1990 to 1,1 million tons in 2003.

From the efficiency point of view, we rank close to the average of the 10 East-European countries, but far away of the production of the western countries, whose efficiencies are 2 or 3 times higher than the average production of milk obtained in Romania. In 2004, according to the data provided by MAPDR, the average production was of 3 280 l/headcount/year.

Milk yield (Kg/Dairy Cow) in Romania and EU

Source: Letiția Zahiu – Politici și piețe agricole, Editura Ceres, București, 2005
FAO, MAPDR
In 2004, due to the negotiations with the EU, Romania has achieved a milk quota of 3 057 000 tons, of which 1 964 000 tons needed for direct sales, 1 093 000 tons for the technological process, while 188 000 tons represent the reserve quota for 2009. The level of this quota has to be reached by the end of 2008. If these quotas won’t be reached, there is the risk of definitively diminishing them at the level of the current achievements.

In contrast to other countries, Romania copes with different difficulties in attaining this quota, not from the quantity point of view, but especially from that of the alimentary security.

The researchers’ estimations show that in the case of modest efficiencies of only 3 700 l/headcount/year, only 800 000 milk cows are sufficient, as against 1,7 million milk cows which were registered during negotiations.

However, these animals have to be bred in farms equipped with a high European technology, and in a way which has to provide them an exceptional productive potential, not of 3 500 – 4 000 liters/headcount/year as it was stipulated in the agreement done at Brussels, but of over 6 000 – 7 000 liters/ headcount/year, so that the farmers could cope with a cheaper milk that might enter in Romania from neighboring countries, where the reserves don’t have the opportunity to be turned to good account on western markets. These effectives have to be concentrated in farms and micro-farms equipped with a new technology, and this involves a volume of investments that overwhelms the financial possibilities of Romanian agriculture.

Precisely for this reason, in the following period, beside these commercial zootechnical farms, all those zootechnical farms which won’t disappear naturally, will continue to produce not only for production, but also for a certain market system based on product exchange.

In order to reach the performance parameters specific to the current development phase of communitarian livestock breeding, in the following five years, Romania will have to achieve at least 25 000 commercial zootechnical farms.

To the quantitative level attained through negotiations, it was added the stipulation according to which Romania has to provide a milk which has to observe EU’s standards by the end of 2009. In this respect, due to these negotiations, Romania has obtained the following:
3 years, until 31/12/2009, for modernizing and equipping with new, high-level technology the units processing the milk, as well as for organizing the collecting centres and those for the milk standardization;
- 3 years, until 31/12/2009, for complying with the communitarian requirements concerning the quality of the raw milk attained.

STRATEGIES OF STRAIGHTENING OUT THE MILK SECTOR

In order to accomplish the requirements of the European Commission’s experts, Romania has to achieve a program of breeding the milk producer livestock so that it could reach the level of the negotiated quotas, both from the quantity and value point of view.

A first objective in this matter would be the organization of the commercial type of livestock farms, so that, in the following 4 years, at least 80% of the negotiated quantity of milk will be provided by this sector; in the same time, the milk obtained will be provided by effectives of cows of a competitive and productive race.

Another way of achieving the strategic objectives regarding the milk could be the organization of the present peasant households into associations of a cooperative type that should change the actual organization of the self-consumption farms, the way of thinking and of operating on our market as a commercial form, of a market economy type, transparent and efficient. If measures won’t be taken, in 2 or 3 years, the self-consumption farms, which at present are sustaining the black market, will naturally disappear due to the conditions imposed by the communitarian European market, having serious consequences on the integration of this sector in the European Union.

Concomitantly, a sanitary-veterinary system must be developed in order to contribute efficiently at the eradication of diseases, at making the stables more hygienic and at the improvement of the sheltering conditions of animals; all these must be done together with those bodies specialized in educating and training the farmers and the farms’ staves, so that the developing of a healthy, intensive, controllable and stable livestock is ensured in order to provide biological and ecological products, competitive on EU’s and on our national market of milk and dairy products.

The EU, PHARE and SAPARD financial funds or, after accession, the EU’s structural funds must be wisely used without neglecting the direct
contributions of some local or foreign investors, so that by the end of 2008, to be able to process and provide on Romanian and communitarian market, milk and dairy products at the level of the alimentary security standards. During this time, due to an exacting and rigorous control, the milk for consumption which doesn’t observe the minimum standards, will be eliminated.

The milk sector represents an important issue, which at the same time is very hard to rise to EU’s standards.

The milk quota of 3 057 000 tons established by the negotiations with EU, generates a series of problems both quantitatively and, especially, qualitatively. These problems must be solved as soon as possible and as better as possible in order to align this sector to the standards imposed by the Single Market.

In this respect, MAPDR has adopted a series of measures regarding the reorganization and consolidation of the milk sector, in general having in view the following:

- the average production increase, per animal, from 3700 liters as it is required at present, to at least 5000-6000 liters/headcount/year;
- the extension of dairy farms, the grouping of those that hold 2-3 animals in associations of a cooperative type and the alignment of the latter to the standards imposed by the EU;
- the implementation of immediate governmental and of pre-accession programmers with a simplified technology, accessible to the investor;
- the modernization and the equipping with high technology of the milk-processing units;
- the organization of centers for collecting and standardizing the raw milk.

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Animal husbandry represents an agricultural sector with special implications upon rural development, through its multiple effects within the capitalization of the vegetal production, through its ecological consequences, and also through its economic and social effects obtained thanks to the durable capitalization of products and to the assurance of raw materials as base for human food, and also for processing industries.

**Key words:** animal husbandry, livestock, dairy cattle farms

The events from December 1989 have had a special impact upon the development of the Romanian economy as a rule and especially upon agriculture. C.A.P. and I.A.S. removal and land and livestock transition from state property into private property have determined profound reorganizations within the vegetal sector, and also within animal husbandry.

The zootechnic sector has endured much harder the shock caused by the reforms after the abolition of communism. Now, almost the whole livestock belongs to the private sector, and some species have reduced to less than half of them in 2002, compared to 1989.

Dairy cattle breeding has a special place in agriculture as a rule and in animal husbandry in particular, taking into account milk importance for human food. 95% of the Romanian milk production is obtained from dairy cattle livestock.

Beginning with 1990, the situation of bovine livestock has changed very much. In the case of cattle, livestock reduction between 1989-2000 was 54%. The highest decrease took place between 1990-1994, when the
average annual rate of cattle livestock reduction was 42.8%, and regarding dairy cattle – it was 19.8%.

The tendency of decreasing livestock is due to:
- the removal of animal farms from C.A.P. and I.A.S.;
- the reduced possibility of the population to increase the dairy cattle livestock;
- the lack of financial funds necessary to purchase a quality biological material;
- the low per cent of heifers for reproduction;
- the lack of subsidies in order to encourage dairy cattle breeders.

The decreases continued up to 2002, but with lower intensities. So, the average annual decrease for cattle was 22.1%, and dairy cattle livestock decreased with an average annual rate of 11.8%. After 2002, the livestock started to grow, obtaining in 2004 3150 thousand cattle and 1850 thousand dairy cattle. This tendency of increase is still continuing.

Beginning with 1990, the most animals have been exploited within private property. The percentage of the private sector regarding dairy cattle exploitation has increased progressively from 45.2%, in 1990, to 99.7%, in 2002.

At national level, there is a total of 1.18 million exploitations which include dairy cattle. 99.8% of these exploitations are individual, and 1.2% are units with judicial personality. 1,538,065 dairy cows are concentrated in these exploitations.

Fig. 1. The percentage of the dairy cattle exploitations, depending on size class
In Figure 1, we present livestock distribution in terms of size classes, in 2002. The most exploitations include 1-2 animals, representing 95.8% of the total number. Among these, the biggest part is represented by the individual exploitations - 99.9%. Exploitations with 3-5 animals are on the second place, depending on size class. They represent 3.5% of the total number, being followed by those with 6-9 and, respectively, 10-19 animals.

Exploitations with over 50 animals represent 0.02% of the total dairy cattle exploitations. Among these, the most representatively are the exploitations with 50-99 animals – 52.1%, most of them being concentrated in the Central Development Region. Exploitations with over 500 animals are a few, only 6 at national level, 4 in the Central Region and two in Northern-Eastern and Southern Regions. All these 6 exploitations with dairy cattle are units with judicial personality.

At the European Union level, the predominant exploitations are those with over 100 animals, including 54.7% of the total European dairy cattle livestock.

In the case of dairy cattle exploitations, the U.E. mean is 28.2 animals/exploitation, with significant differences from one country to another. In some member states, the average number of dairy cattle per exploitation is bigger than the European mean.

In order to be able to reach the milk quota negotiated with the European Union, until 2007, we should have in our country 30,000 farmers, each with over 15 animals, compared to only 8,000, as we have at the moment. In the next two years, cattle number must increase with 1 million breed cattle.

Their exploitation must be carried out in modernized farms, technologically supplied, according to the European standards and within an exploitation regime that should guarantee a high productive potential for the future – 6,000-7,000 l/animal/year. The concentration and the exploitation of the dairy cattle livestock in microfarms and well-technologized farms suppose an investment volume that overtakes the financial possibilities of the Romanian agriculture.

Investments must have especially the following objectives:
- investments to modernize and supply technologically the existent units in order to found centers for collecting, cooling and storing milk;
- investments in milk and dairy product processing, storing and marketing, and also in the modernization and in the technological supply of the existent units;
- investments in order to improve the monitoring and control system within the milk reception, collecting, processing and marketing chain, from a qualitative and quantitative point of view;
- investments to build and modernize laboratories and to purchase laboratory devices.

The development strategy for this sector assumes the following objectives:
- the annual increase with 5-6% of the dairy cattle and heifer livestock until 2007;
- the increase of the dairy cattle exploitation dimensions, the grouping of those with 2-3 animals into cooperate associations and their alignment to the standards imposed by the E.U.;
- the annual increase with about 10-15% of total milk production, until 2007;
- the support for private breeders with subsidies per product;
- credits with reduced usury, allocations, bonuses and reduced taxes;
- the assurance with reproduction high quality material;
- the committal of the founding inter-professional organizations per product.

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This study proposes and analysis of the actual food and non-food consumption pattern characteristics comparing to the families most important expenses destination (expenses level for food products and non-alcoholic drinks in Bulgaria, Romania, Hungary and Czech Republic, during 1996-2002). Differences between the food and non-food consumption in Romania and some other central and eastern European countries.

Key words: food and non-food consumption pattern, characteristics, differences, expenses level, consumers

The main destination of the Romanian family expenses is the consumption of goods and services, which covered, in the last decade, three quarters of the total expenses. In 2001 and 2002, these increased at 73% of the total expenses. The consumption expenses represented, in 2002, almost 4744.7 thousands Rol/family (INS 2003, page 47).

In 2002, the expenses for taxes, dues, charges were relatively high. For the families where the incomes were mostly from salaries, this expense level was 22%, for the families of employer with employed members – 15.9% and for the families with unemployed members or pensioners, the level of contributions was 8.2% and 7.8%. The lowest level of expenses was registered for the independent workers (5.1%) and for farmers (1.8%).

The monthly average consumption structure per person for basic food products, in Romania, in 2001, is revealed in table no. 1

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Table 1

The monthly average consumption per person for some food products, in several Central and Eastern European countries, in 2001

<table>
<thead>
<tr>
<th>Country</th>
<th>Meat and meat products</th>
<th>Fish and fish canes</th>
<th>Fats and oils</th>
<th>Fresh milk</th>
<th>Bread</th>
<th>Sugar</th>
<th>Potatoes</th>
<th>Fresh vegetables</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bulgaria</td>
<td>2,61</td>
<td>0,28</td>
<td>0,93</td>
<td>2,31</td>
<td>11,09</td>
<td>0,70</td>
<td>2,24</td>
<td>4,96</td>
</tr>
<tr>
<td>Romania</td>
<td>3,24</td>
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<td>1,60</td>
<td>5,55</td>
<td>8,73</td>
<td>1,48</td>
<td>3,67</td>
<td>4,81*</td>
</tr>
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<td>1,21</td>
<td>3,44</td>
<td>2,93</td>
</tr>
</tbody>
</table>

* Fresh and canned

Source: CANSTAT Statistic Bulletin, no. 4/2002, INS

From the table, the lacto-cereal character of the Romanian population nutrition pattern can be noticed (confirming once again the dominant subsistence characteristic of the food consumption).

Graphic no.1

Expenses level for food products and non-alcoholic drinks in Bulgaria, Romania, Hungary and Czech Republic, during 1996-2002


Concerning the average expenses structure per family from the countries in transition, during 1996 – 2002, both central and eastern European context, in our country the expenses level for food products and
non-alcoholic drinks is very high comparing to other countries (graphic no.1).
The real consumption expenses for 2002 shows that the Romanian population spent more for non-alimentary services and products than for food products (table no.2), this is an effect induced by the consumption needs priority related to the price evolution for the services and non-alimentary products field.

### Table 2

**Real consumption expenses dynamic per category, from the head of family occupational status point of view, in 2002**

<table>
<thead>
<tr>
<th>Families:</th>
<th>Total families</th>
<th>Salaries</th>
<th>Employer</th>
<th>Independent workers (non-agricultural activities)</th>
<th>Farmers</th>
<th>Unemployed</th>
<th>Pensioners</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total consumption expenses</td>
<td>102,9</td>
<td>103,0</td>
<td>104,5</td>
<td>98,6</td>
<td>102,2</td>
<td>98,6</td>
<td>102,4</td>
</tr>
<tr>
<td>- food consumption</td>
<td>101,5</td>
<td>101,2</td>
<td>107,1</td>
<td>97,9</td>
<td>102,5</td>
<td>98,3</td>
<td>101,3</td>
</tr>
<tr>
<td>- non-food products</td>
<td>105,6</td>
<td>103,0</td>
<td>102,9</td>
<td>90,1</td>
<td>107,7</td>
<td>103,4</td>
<td>108,7</td>
</tr>
<tr>
<td>- services payment</td>
<td>106,2</td>
<td>107,3</td>
<td>101,5</td>
<td>118,1</td>
<td>108,3</td>
<td>99,6</td>
<td>103,1</td>
</tr>
</tbody>
</table>

**Source:** Living level coordinates in Romania. Population incomes and consumption in 2002, INS, 2003, page 54

Only the families where the head of family is an employer, the consumption expenses level was the highest, realizing a real expenses dynamic for food consumption higher with 7.1% than in 2001. Although the highest level of expenses for food products, in 2001 and 2002, were realized by the farmers (73.3 and 71.1%) and unemployed (61.6 and 54.3%) (Romanian statistic database 2002, 2003, INS, CNS, Living level coordinates in Romania. Population incomes and consumption 2002, INS 2003, page 54), in fact the farmers realized a real expenses dynamic for food products higher with 2.5% than the previous year, while the unemployed spent less according to a dynamic lower with 1.7%.

The services and goods consumption polarizing phenomena, after 1990, took striking forms by 2000, when a new wave of population poverty appeared (1997-1999). So, in 1997-1998, Romania had the highest level of salary poverty in Central and Eastern Europe (in 1998 this was 44.5% at 4$
ppc/day) (Transition report, 2002, page 107). In the same time, for some small categories of consumers, became possible the expression of some options leading to a very high wellbeing level.

In 2000, for the first time, appeared a phenomenon in the employer families, which destined a higher level of incomes for acquiring non-alimentary goods, in stead of food products. After 2000, in the consumption expenses of these families increased the level of resources for services (the highest relative service consumption registered).

In the same year it can be noticed another aspect, namely the Romanian population effort to pay the maintenance costs, water, electricity and other fuels, its level being over 19% from the whole consumption expenses.

Compared to the Central and Eastern European area, the only population spending more than the Romanian people is Hungary (the maximum level is 21.6% from the whole consumption expenses in 1999) (graphic no. 2).

**Graphic no. 2**

\textbf{Expenses level for maintenance, water, electricity and other fuels from the whole consumption expenses in Bulgaria, Romania, Hungary and Czech Republic, during 1996-2002}

\begin{figure}
\centering
\includegraphics[width=\textwidth]{chart.png}
\caption{Expenses level for maintenance, water, electricity and other fuels from the whole consumption expenses in Bulgaria, Romania, Hungary and Czech Republic, during 1996-2002}
\end{figure}


This type of consumption is specific for the urban area (for those living in apartments), and less for the rural area. In 2001 and 2002, the
expenses level for house maintenance from the whole consumption expenses decreased, for our country, from 19.2% in 2000 at 17.6% and 18.7% because of the public facilities prices, which did not decrease (table no. 3).

### Table 3

The average expenses structure per family in the Central and Eastern European countries, during 1996-2002

<table>
<thead>
<tr>
<th>Year</th>
<th>Total monthly expense/person (in national currency)</th>
<th>Food and non-alcoholic drinks</th>
<th>Alcoholic drinks, tobacco and narcotics</th>
<th>Clothes and shoes</th>
<th>House maintenance, water, electricity and other fuels</th>
<th>Domestic equipment</th>
<th>Health</th>
<th>Transportation</th>
<th>Communication</th>
<th>Recreational activities and culture</th>
<th>Education</th>
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<tbody>
<tr>
<td></td>
<td>% from total expenses</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</table>

*– in Bulgaria 100BGL=1BGN

CANSTAT Statistical Bulletin no 4/2002, INS

As it can be noticed from the distribution of average expenses of the population from the Central and Eastern European countries, during 1997 –
2002, Romania has relatively low expenses concerning the acquisition of domestic equipment.

In 2001 and 2002, the highest level of non-alimentary expenses (after maintenance expenses) was registered for clothes and shoes (~24.5%), followed by the automotive means and other transportation means, fuels, lubricants and other maintenance products (~15.5%). Also, it can be noticed that the Romanians spent, in relative figures, less for recreational activities, culture and education (between 2.5 and 4.7%) comparing to the Czech Republic, where the expenses for this matter over 10% from the incomes for consumption.

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PROMOTION INSTRUMENTS USED IN AGROTURISM

INSTRUMENTE DE PROMOVARE FOLOSITE ÎN AGROTURISM

VALENTINA DĂRĂȘTEAN*, ELENA PEȚ*

Being already a custom for the world tourists’ holidays, agrotourism has proved to be a profitable activity, especially due to the change of tourists’ preferences towards this type of tourism in the detriment of the „industrial” type. The Romanian rural surroundings launching, as an agrotouristic product, is a marketing procedure which must take into account the product (offer) and consumer (demand). The image and agrotouristic product promotion is made in order to determine the customers to be loyal, to understand the competitor (counteracting is easier) and to assign and use efficiently the marketing resources.

Key words: promotion, competition, agrotourism

Agrotourism represents a real chance for the local economy. Created and assisted it offers the main motivations in the training and development of the initiatives, traditional activities or some occupations that have been neglected for a long time. Preoccupations concerning the agrotourism development rely on the motivation to satisfy as much the need of rest and the active recreation of population from the cities, as to enhance the value of local resources.

The agrotouristic unit acts in a dynamic area. The success in the agrotouristic marketing depends on the following elements: the people who organize the agrotourism business, the place where the agrotourism exploitation is set up, image and agrotouristic product promotion methods, the set of products offered and their performances, the applied rate of prices, the action plan.

In Romania, the agrotouristic pensions were statistically registered beginning with the third trimester of 1995. The touristic capacity of accommodation existing in 1997 was 287,943 vacancies, later other 52,027 vacancies were made available, and the net usage index was 8,2%. In 2002, although the capacity of accommodation decreased slightly to 272,596

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vacancies, and the vacancies made available also decreased to 50,752, the net usage index increased to 11,1%. This may have several causes, one of them being certainly the image and agrotouristic product promotion.

Due to the lower comfort of a rural house, a precarious development of rural infrastructure, as well as due to other problems from the rural area, the agrotourism development is carried out more slowly but it is still happening. The Promotion – key element -

Promotion is called any form of communication used to inform, convince or remind the public about the existence of some goods/services that are sold on the market. This is carried out through: advertising, brand, package, information offices, markets and exhibitions, etc. The consumer is the public whom the promotional message is addressed to, the agent/intermediary or other organizations, and this message has to be: strong, appealing and credible. An efficient promotional message must carry out 4 compulsory missions: to draw the attention, to raise interest, to create the desire of purchase, to determine the act of purchase (AIDA).

AGROTOURISTIC PROMOTION IN WESTERN AREA

The V West Agency for Regional Development (ARD V West) (established in 1998) has the following objectives: the increase of the regions’ appeal (foreign investments inducement/attract), new professions creation, in accordance with the international markets, new touristic structures establishment and the existing ones modernization, the introduction of the area in the international agrotouristic cycle, the activity diversification in rural area in order to increase the additional incomes within the peasant households, the improvement of environment and touristic infrastructure (town and communication) – basic condition to relaunch rural economy, to develop services in the rural area etc.

In this respect, the SAPARD Programme is carried out during 2001-2006, with the implementation of provision 3.4., or other programmes with unredeemable financing, specific to rural area (issued by the World Bank, PHARE, ISPA etc.). The total investment is 127,63 million Euro.

A very significant role in the development and promotion of Romanian agrotourism in the V West Region has the non-governmental and non-profit ANTRACT association (National Association of Rural, Ecologic and Cultural Tourism), founded in 1994, in the same time gaining the quality
of member of EUROGITES, Romania being included in EUROGITES
catalogue, where the most representative European units are presented from
the agroturistic network. NARECT, in collaboration with the Ministry of
Transports, Constructions and Tourism, draw up a general offer of our
country, brochures with pensions from the NAREC network, including the
English version of the National Catalogue of Agrotouristic Pensions, issued
in 2004.

The Rural Assistance Center (RCA) began his activity in 2000 and it
is a nongovernmental organization which has as main field of activity the
communitary and institutional development in rural area, and its mission is
to create and consolidate local capacities for a durable development. RCA
approaches partnerships, rural studies, consulting and assistance, organizing
training sessions and marketing strategies in order to obtain funds,
volunteers management, time management, etc.

CASE STUDY
„LA RĂSCRUCĂ” PENSION FROM GĂRĂNA

Among all pensions built in the last few years in Gărăna, the better
placed and, by far, the most visited in the region, is „La Răscruce”, Gigi
Tăuș’s pension, classified with 2 daisies of 3.

With an accommodation capacity of 34 places, in 14 rooms with 2,3
or 4 beds, own central heating, sauna, bathrooms with showers and
permanently hot water, the pension is modernly decorated, with an inspired
architecture and a well organized space, offering the tourist maximum
comfort. But it doesn’t give up the rustic style, present as much in the inner
corner decorations in the outside one. The prevalent element is wood, and the walls
are covered with old objects from the old handicraft culture of the village.
The pension’s restaurant has places for 45 people, plus 25 on the terrace. The basic services of the pension are completed with a seminar room
frequently rented for 3 to 10 days by different institutions.

But the thing that truly promotes the „La Răscruce” pension includes
secondary services offered by this pension that we are going to analyse
further on:

1. From geographical point of view, Gărăna is situated in Banat’s
Mountains, at an altitude of 1000 m, on the north mountainside of Semenic
Mountains, at 135 km from Timișoara, at 35 km from Reșița, at 12 km from
I Văliug Lake, at 12 km from Semenic and 6 km from Trei Ape Lake. The air is strongly ionized, according some statistics, more ionized than the air from Băile Herculane. Being very close to these touristic attractions, the client can anytime choose a sailing with the boat or with the hydrobicycle on Trei Ape Lake, or to swim or fish trouts. In March, on Semenic Mountain the Snow Feasts take place, event that attracts very many participants, fans of winter sports.

2. Gigi Tăuș does his best to organize annually (since 1996) another possibility of pleasure for his clients: The Jazz Festival in the middle of August, the only musical-artistical demonstration organized in a mountain village. The initial jazz concerts, that took place under the form of musical meetings between the fans of this type of music, were held for the first time on an improvised stage, gathering about 300 spectators. Later on the bandstand has been built, specially arranged for the festival and this has been continued annually without sponsorships and without any payment for the musicians. There were well-known names from the Romanian and international jazz on the stage, all Gigi Tăuș’s friends since the concerts from the ‘60: Johnny Răducanu, Mircea Tiberian, Dan Ionescu, Puba Hromadka, Kamo Bega Blues Band, Paul Weiner, Michael Blam (Israel), Hannes Beckmann (Germany), sau Gyarfás Istvan Trio (Hungary). Year by year the festival made progress and now Gârâna can compete with any other jazz festival organized in Romania. The festival is strongly present in the media while it is going on, as much in the local mass media as in the central one. This festival has contributed to the regions’ development, all 8 pensions being fully booked in those days in the village. Although the yard of the „La Răscruce” pension is the most spacious in the area, it becomes small during the festival. In order to increase the comfortability rate of the participating tourists, Gigi Tăuș intends to organize the following editions on a platform of the village relief, in a well organized manner.

3. Annually, in 15th October takes place the dedication day of the church from Gârâna, occasion when Gigi Tăuș organizes the traditional Kirchweich, helped by the guests from Germany and from the area, by some dancing groups and by the „Banat Ja” Romanian-German Association. Periodically, in July-August, the „La Răscruce” pension offers housing for the Artists’ Symposium. The dancing nights with the Musicians from Gârâna represent another popular holiday.
4. Another promotion instrument is the **client himself**, who changes invariably into a loyal customer, due to the hospitality and originality encountered here. At each step his eyes can stop on an old object from the area’s handicraft, whose value cannot be appreciated because of its oldness (the most recent acquisition is a railway lamp).

5. **The Prices** used in this pension are only in lei, regardless of the clients’ citizenship, and they do not vary according to season or event, as it happens in any other pension. This motivates the touristic attraction and the market gaining, because the price limits are accessible to a large range of customers of agrotouristic products.

6. The traditional but in the same time delicate **cuisine** of the pension is another promotion instrument. At „La Răscruce” one can eat, beside the dishes specific to the area, also the home specialities: Gulaș à la Gigi (that Gigi Tăuș himself prepares on the occasion of the Jazz Festival). In order to improve and diversify the culinary offer Gigi Tăuș introduced on the menu, on the occasion of Easter Holidays 2004, **Cozonacul lui Păstorel** (Păstorel Sponge cake), made of 150 eggs, (only yolks).

7. **The client’s satisfaction degree** is a very important criterion, Gigi Tăuș – one of the most valuable jeweller of Timișoara - trying to serve himself as many clients possible.

8. Every year the **New Year’s Party** is organized at the pension, the places being already booked in advance till 2007. There is also a Book of honour for his clients, that is at its second volume.

9. Another type of promotion is the **web site** in order to present the pension, where you can find all the necessary data, including the contact coordinates, at the following address **www.la-rascruce.ro**.

10. The promotion of the pension’s potential is also carried out by the **Rural Asisstance Center**, which recorder and multiplied on CDs, a film about the pension, printed leaflets and booklets or published articles (example: the promotional issue of the „Banat touristic” Journal).

11. But recently Gigi Tăuș has thought to make, with the help of the local craftsmen, a set of **objects-souvenirs**, that would become a brand and personalize the image of the pension and of its agrotouristic product.

12. **Gigi Tăuş** intends also to enrol the pension in a **circuit of specialization practice for pupils and students**.

13. **The only negative promotion** of the „La Răscruce” pension is **the lack of a means of transport between Reșita-Gărăna**, that would
complete the customers category with the group of people with medium incomes, who do not have their own car.

CONCLUSIONS

In his field of activity any entrepreneur would like to be alone. When on the same market segment appears another tradesman who offers the same products and these are meant to the same client range, competition appears, economical feature without which the market cannot function.

Promotion and advertising instruments are absolutely necessary to any agrotouristic unit. In the Romanian agrotourism, more than in any other sector, the importance of the promotional activities is as much economical as social kind. The possibility to emerge from obscurity and the uniformity specific to the great urban crowds, to come closer to the occupations and traditional customs, to learn some professions that lead to the individual satisfactions and give the feeling of usefulness in personal level, is offered for those who remained in the urban area.

Promotion is vital to any agrotourist units because due to its help information is supplied, an image is created, the demand is stimulated, enthusiasm is aroused, the attention to a new product is called, the price is justified, the customer is educated changing the clients in loyal customers, the sells are increased, brands are created etc.

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THE TYPOLOGY OF MECHANICAL AND VETERINARY SANITARY SERVICES IN AGRICULTURE

TIPOLOGIA SERVICIILOR DE MECANIZARE ȘI SANITAR-VETERINARE ÎN AGRICULTURĂ

E. MARINCA* , L. SÂMBOTIN*

The services destined for agriculture are divided, through a wider understanding, into two categories: the ones with a direct influence over production (for example, mechanical and veterinary sanitation) and the ones that indirectly influence production (for example: consultancy, financing and crediting services).

In this paper we present two important services with direct influence over agricultural production, namely mechanical and veterinary sanitation services.

Key words: services with direct influence over agricultural production, mechanical services, veterinary sanitary services

MECHANICAL SERVICES

Mechanical services are those with a direct impact on the soil. In other words, they represent the works which influence, even change, the physical, chemical and biological factors to create optimal conditions for the seeding, the germination and growth of plants.

These services contribute, on the other hand, to preserving and even increasing the soil’s fertility through the periodical chemical nourishing and the incorporation of vegetal material left over after harvesting.

Mechanical services can, when necessary, contribute to the renewal of the agricultural circuit of damaged soil (too much humidity, salinity, drought, erosion) by improving the internal drainage, hardpan fragmentation, breaking down the crust, supporting the washing away of salts etc.

Through mechanical services weeds some diseases and pests which grow in a direct connection with the soil can be fought back.

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Fertilizer and irrigation water efficiency and the health of the crops depend on the success of mechanical services. Mechanical services can be divided by the following criteria:
- main purpose
- the time it takes
- the tools which are used
- the depth of execution; the complexity of the machinery and the work done; the plants for which it is carried out.

a) Mechanical services depending on the main purpose

We can speak of basic works, activities performed for preparing the germination of the soil, for maintaining the fields and supporting the crops. The basic works are mainly aiming at the mobilization of soil at depths of 15 – 80 cm.

The quality of these types of services is always found in the execution of works for the preparation of the germination of the soil and in the protection of the plants and of the soil.

The basic works are generally associated with the fertilization through natural organic manure (the stable wastes must be incorporated in the ground through plowing), the elimination of the temporary excess of humidity and the reduction of crust at the surface of the soil (the deep plowing), the change of the destination of the terrain destined for plowing to that of terrain for tree plantations etc.

The basic works include plowing, deep fertilization, the plowing for freeing the soil from hard crust.

The works done for the preparation of the germination of the soil have in view its mobilization at a depth of no more than 10 cm, for assuring the best conditions sowing, germinating and growing the plants. This type of works is executed in different ways for each culture (spring culture, autumn culture and successive cultures).

The works for the maintenance of the fields are oriented towards the superficial breaking down of the topsoil for a uniform terrain, the destruction of weeds, the breaking down of the natural remains from the former culture.

b) Mechanical services depending on the period of execution

In accordance with the period of execution the mechanical services include works done in summer time, in autumn or in spring.
During the season of spring, the soil is prepared for germination, for the future cultures, on the one hand, and, on the other hand, the fields are to be maintained. We have to underline the fact that the works done in spring are of a lower quality if compared with the ones executed in summer or in autumn.

In summer, only works of eliminating the remains or the weeds from the fields are done, together with services of maintenance or of preparing the soil for the germination of future successive cultures.

In autumn, plowing is performed, followed by the preparation of the germination bed for the cereals sown in autumn, the deep sowing for the cultures of spring, followed by the preparation of the bed conceived for the cultures of early spring.

c) Mechanical services depending on the tools they are done with
   Most of the works are performed with the plow, the harrow, the disk harrow, the tooth harrow, the tillage cutter, the roll etc.

d) Mechanical services depending on the depth of execution
   In the category of these works one may include:
   - superficial works, like breaking down the topsoil, trenching the terrain, hoeing, the superficial plowing etc;
   - deep works, like plowing;
   - very deep works, like very deep plowing, the deep penetration of the soil during the operation of trenching etc.

e) Mechanical services depending on the complexity of the machines used
   Such services in which machines are involved are:
   - works for preparing the bed of germination through fertilization and use of chemical substances;
   - works of eliminating the weeds simultaneously with the fertilization of the soil on rows of plants.

f) Mechanical services depending on the plants for which they are carried out are:
   - works applied on the soil for the autumn cereals;
   - works applied on the soil for the spring cereals;
   - works done for eliminating the weeds;
   - works done for the tree plantations, for vines or for the culture of vegetables.
We are going to present in Table I the park of tractors and the situation of the most common agricultural machines in the agriculture of Romania.

<table>
<thead>
<tr>
<th>The stock of tractors and machines agricole</th>
<th>1999</th>
<th>2001</th>
<th>2002</th>
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<tr>
<td>Physical farm tractors</td>
<td>16388</td>
<td>14433</td>
<td>16422</td>
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<tr>
<td>Plows for tractors</td>
<td>12295</td>
<td>11081</td>
<td>12690</td>
</tr>
<tr>
<td>Mechanical cultivators</td>
<td>27988</td>
<td>24686</td>
<td>26037</td>
</tr>
<tr>
<td>Sowing machines</td>
<td>56173</td>
<td>50140</td>
<td>59979</td>
</tr>
<tr>
<td>Machines for spreading chemical fertilizers</td>
<td>8940</td>
<td>6689</td>
<td>9250</td>
</tr>
<tr>
<td>Machines for spraying and dusting with mechanical traction</td>
<td>8202</td>
<td>4584</td>
<td>6898</td>
</tr>
<tr>
<td>Self-moving combines for harvesting the straw cereals</td>
<td>29934</td>
<td>26811</td>
<td>24716</td>
</tr>
<tr>
<td>Self-moving combines for harvesting corn</td>
<td>1334</td>
<td>1065</td>
<td>1068</td>
</tr>
<tr>
<td>Self-moving combines for harvesting fodder</td>
<td>2101</td>
<td>1290</td>
<td>1267</td>
</tr>
<tr>
<td>Self-moving windrovers for harvesting fodder</td>
<td>2153</td>
<td>1386</td>
<td>1661</td>
</tr>
<tr>
<td>Presses/ mills for bundling straws and hay</td>
<td>8544</td>
<td>6290</td>
<td>5575</td>
</tr>
</tbody>
</table>

Source: Anuarul Statistic al României, 2003

**VETERINARY SANITATION SERVICES**

In Romania, the veterinary sanitation services are being performed through the veterinary sanitation network which is in direct subordination to the Ministry of Agriculture, Forests and Rural Development, having in its structure:

- The National Agency of Veterinary Sanitation and for the Security of Food;
- The veterinary institutes;
The National Agency of Veterinary Sanitation and for the Security of Food coordinates and controls the whole activity in the domain of veterinary sanitation, consisting of:

- an anti-epizootiological service and a service of veterinary sanitation assistance;
- the trust for hygiene and public health;
- the veterinary sanitation police.

The Ministry of Agriculture, Forests and Rural Development, through the National Agency of Veterinary Sanitation and for the Security of Food establishes the compulsory veterinary standards for law or physical persons that own animals, establishing at the same time the list of catching diseases.

Nevertheless, the Ministry of Agriculture, Forests and Rural Development is also responsible for the production of biological tests necessary in order to detect, to prevent and to fight against most illnesses that might occur to animals, approving the implementation of biological products, of medicines, insect and rat killing substances and of other products of veterinary use.

Lately, in Romania, we assist at a steady increase of infections, major illnesses like bovine leucosis, bovine tuberculosis, infectious anemia at horses, the emphysematous coal at bovines, the plague at the pigs etc.

Most part of these diseases are detected in the population’s households and not so many in the farms which are specialized in breeding animals. For fighting and eliminating these diseases, the veterinary trusts and those for the security of food in the counties have the obligation to carry out actions of supervising, hindering and combating such diseases through compulsory vaccination or through general hindering treatments.

Together with the activity of the veterinary trusts and for the security of food, the sanitary standards oblige the owners of animals to the following measures:

- to obey the veterinary sanitary rules for preventing the penetration of such catching diseases in the farms as well as to eliminate them and to hinder the spreading of illnesses in the contaminated units;
- to assure the maintenance of the locals of production, storing and trading the products of animal source, the means of transportation for animals and for products with animal origin;
- to announce the veterinary sanitary clinics when such catching diseases occur and to isolate the ill animals until the vet arrives.

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THE PROJECTION OF A SYSTEM OF SERVICES FOR THE FAMILY PRIVATE FARMS OF A COMMERCIAL TYPE

PROIECTAREA UNUI SISTEM DE SERVICII PENTRU FERMELE PRIVAT-FAMILIALE DE TIP COMERCIAL

E. MARINCA*, L. SÂMBOTIN*

Having in view the shortest possible way of the agricultural products from their producer to the consumer, the services designed for agriculture in the rural system must offer all types of works in the area of rural communities.

Key words: agricultural exploitations of a commercial type, execution of services, preliminary services, posterior services

In a rural system of executing services, the services in agriculture must be provided for all the domains developed in the region, among which the services in the proper sense of the word (services of mechanization, services of protecting the plants etc.), that must be anticipated by preliminary services like (the credits for agriculture; services of leasing; services of supplying materials and production factors; the use of techniques of production; services of assurance; services of agricultural consulting), completed with posterior services (the transportation of products; the distribution of products; the storing of products, the trade of products; the publicity, all these making up the mix of marketing).

In this way, the agricultural products get straightly to consumer, shortening the way done by the agricultural goods from their producer to their consumer.

In conclusion, the services in agriculture have the role of accelerating the trajectory of the agricultural product from the producer to the consumer.

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The execution of services in the agricultural activity within the family private farms of a commercial type

The execution of services in the effective agricultural activity imply: the access to cheap credits on a short, medium and long term, aiming at the fulfillment of durable exploitations; the assurance of the agricultural productions, of the fleet of animals etc. through subventions and primes;
facilities when signing contracts of selling the agricultural products before the harvesting of the crops in order to establish the dimensions of the future culture according to the perspective of these contracts; the possibility of borrowing machines on a limited period of time, of borrowing large stocks of tools and equipments, that are too expensive, is of real help for that agricultural exploitation; the consulting regarding the structure of the cultures, the technologies used, the possibility of selling the agricultural products obtained, support in the professional training of the farmers inside the centers of consulting in agriculture; the support for the implementation of “Associations of Marketing” meant to assure the selling in common of the products obtained; the stimulation of investments which will lead to a large variety of the productive activities in the rural zones, allowing a better exploitation of the force of production; the execution of sanitary veterinary services at the level of the requirements and the criteria of the E.U.; the encouragement of investments that would allow the development and the diversity of the rural infrastructure at a level very close to that of the countries which form the E.U.

In order to be considered an agricultural exploitation with commercial character, the farm has to sell at least 30% of its own agricultural production. In Romania, only 15% of the agricultural exploitations are commercial. Only 4% of these agricultural exploitations sell more than 50% of its own agricultural production.

Within the agricultural exploitations of a commercial type, the execution of services have in view: the creation of facilities which allow the increase of the number and importance of the agricultural exploitation of a commercial type; the implementation, with the help of the state and of the subventions given by the E.U., of durable and modern agricultural exploitations much closer to the level of those existing in the E.U.; the development of some professional organizations of farmers representing commercial exploitations, able to represent the interests of this category of exploitations in their relations with the market and with the public institutions; the offer of credits, subventions, as well as the reduction of taxes in order to bring the exploitation of a commercial type at the standard levels of E.U.; the encouragement of forming larger societies that provide services in agriculture aiming to permit to small and medium exploitations to appeal to such services, knowing that they cannot afford from a material or financial point of view to carry out such services themselves.
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THE TOURISM AT “LIMAN’S VALLEY”
TOMEŞTI, TIMiş COUNTY

TURISMUL LA “VALEA LUI LIMAN”
TOMEŞTI, JUDEŢUL TIMiş

IOANA DELIA MOISESCU*, M.-R. LUNGU*

The touristic complex Liman’s Valley is situated in the East part of Timiş county. It was built in 1973 year where the natives gathered themselves at the end of the week.

**Key words:** tourism, complex

The touristic complex Liman’s Valley is situated at the foot of the Poiana Rusca Mountains between Tomeşti commune and Luncani de jos village in Timiş county, on the shore of Bega river, seated in the frame of a natural sets surrounded by mountains, forest of broad-leaved trees, enjoyed of massive forests of resinous and of pine specific ozone.

The Liman’s Valley touristic complex was built in 1973 year with the support of local mayoralty and with the support of natives and of workers engaged at Tomeşti Glass Factory. Many years ago, in the place on what was built this complex, the natives gathered themselves at the end of the week to spend the week-end, because working in heavy conditions at high temperatures had need of the recovery of the work force and relaxation together with them families, and then they took the decision of building this complex of remaking and recovery. In the year 1975 the touristic complex “Liman’s Valley” was transferred to Timiş County Tourism Organization and after was passed in touristic circuit and began the development as touristic basis through the enlargement of accomodation capacity, the building of camping houses, houses type villa, motor parking, pool and the arrangement of access way. In the year 1993 this touristic complex was bought by National Society of Oil from Bucharest and was delivered to Petrom Branch Timişoara for administration and for the development this in

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report with the needs of the consumers and the norms stipulated by law and imposed standards. In this period, of N.O.S. București, were effected vasted interests work, of arrangement and of increase of the comfort at the level of two stars of the hotel and of I category of the restaurant.

The touristic complex Liman’s Valley includes: motel, camping, pool. The motel has 19 rooms. The camping has 30 houses. The Violeta villa has 3 rooms. The restaurant has 166 places. For a servicing of quality and to answer at customer demand, the Valea lui Liman restaurant disposes of a work formation of 14 persons. The restaurant addresses to the tourists arrived at rest and to spend the week-end, holidays, organized trips and festive organizations, offering the three main meals: breakfast, lunch and dinner, the service à la carte. The organizations of training camp of different groups of sportsmen from Timiș county doesn’t lack.

As touristic potential, thanks to the geographical laying in a very beautiful zone and in a distinct natural frame, can mention some strong points to pay visit on a perimeter enough near of Liman’s Valley and we mention some of them:

a) The Monastery Source of Miron from Românești locality, or is named the Monastery Warm Swamp because in the yard of monastery is a swamp with thermal water in what grow white water lilies almost all time year.

b) The Trouting from Warm Swamp, from where can buy trouts on the each liking, and after that can be cooking at Liman’s Valley.

c) The Acoustic Cave from Românești, where in every year in October is developed a concert of symphonic music, because is considered the most acoustic cave from Europe.

Carg Cave is situated at 2 km of Liman’s Valley and is arranged at entrance with an access staircase of 20 meters after what it overtakes in a splendid room decorated with different mine flowers, stalactites, stalagmites of different huge dimensions what arrive till 10 meters.

It can pay visit and cross the way built in mountains by the Austrians in the XVIII –th century named The Way of the postman what intersects with county way and is a way of strategical communication between the three counties: Timiș, Hunedoara, Caraș-Severin. This way intersects Poiana Ruscăi Mountains, the Padeș peak and was built from stone, and from XX-th century is passable.
The strong points of the Complex Liman’s Valley are: the expert personnel, the proper parking, the pool with heating and recycling the water, the beach with natural turf, the proper modern central, the guard 24 hours from 24, the gifted kitchen, the football ground at 50 meters distance, the unity is in a natural rustic frame, the garages in unity yard.

The weak points are: the unity has no conditioned air, is lack of washing vessel machines, the unity is at 25 km distance of railway station, the unity has no proper washhouse, a linen of adequate to demands dimensions.

All the natural and anthropic components, what compose the environment from this touristic zone involve the interest of the tourism in the actions of protection of the environment, the protection of proper resources and the elimination of the degradation factors of these touristic resources. The protection of the environment is an essential factor for the tourism development, the ensurance of a lasting tourism made that the environment protection to become a world problem and a preoccupation of many international establishments in the last 30 years. The environment protection means the total actions destined to ensure the conservation of the natural resources and the protection the quality of the environment components.

The tourism is considered on international plan as one from the most important and dynamic economic sectors, with an evolution always upward of a series of indicators of its value praises and the importance of this in world economy (at the level of the year 1998 one of the first world industry with a total income of 3,500 billions $ USA; the volume of the returns from tourism over 12% from the expenses of the globe population; the tourism contribute at the world National Gross Product (NGP) with over 6%; ensures over 127 millions work places, that is 6.5% from occupied population of the globe and 6% from world wage mass; the most important investor of capital with over 425 billions $ USA; participant in percentage of over 6% at the volume of international economic exchanges and so on). The share of the touristic returns in the volume of the exports raise at over 25% in Caribbi, 20% in Central America, 19% in South America and … regrettable, only 1-2% in East Europe.

With all these, in Romania the tourism hold one of the most little shares in national economy – at the level of the year 1998: the returns from tourism have a share of 0.80% from NGP, given the average of the zone of
1.3%; the reduced level of occupied work force in tourism, only 135,000 persons; reduced share in the services export 24.7% given the zone average of 95.4%; the currency returns from tourism totalized only 414 millions $ USA in the year 1999; capacity of reception in hotel and assimilation structures, very much in comparison with other countries from Central and East Europe, place 2 in 1998 with 171,800 places, after Croatia with 288,900, given the value and the volume of touristic activity recorded.

The future of Romanian touristic offer will depend of its possibility of answer to the exigency always growing of touristic demands and of adapt at this, main of: the diversification of touristic products; the quality of reception structures; the ensurance to the transports and telecommunication at European level.

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CONSIDERATIONS CONCERNING THE POLICY OF THE ALTERNATIVE OCCUPATIONS IN RURAL AREAS

CONSIDERAȚII PRIVIND POLITICA DIVERSIFICĂRII OCUPAȚIILOR ALTERNATIVE ÎN ZONELE RURALE

VALENTINA DĂRĂȘTEAN*

The experience of the EU member states prove that the success of a dynamic rural region is not based on a special intersectorial combination. The rural economy diversification is a key issue for the success of any rural development policy in Romania. Rurality does not constitute an impediment to create jobs. Beginning with this conviction this paper presents some aspects of the rural economy diversification, especially referring to investments in activities that generate alternative incomes: agricultural sector, agroturism and rural tourism, the processing and promotion of native products, handicraft, forestry and the development of Small and Middle Enterprises in non-agricultural sectors.

Key words: rural financing, alternative incomes and occupations

The economic and social development of rural area is no more synonym with agricultural development. In western Europe, agriculture does not represent an economic development source anymore, and the expansion of agriculture was tempered by adopting communitary policies that aimed to reduce overproduction, the alignment at world market prices and the integration of environment protection elements.

Some specialists consider that the number and age structure of the active population in Romania does still not justify policies that encourage young farmers’ installation. Though, the recent proposal of the government to institute an establishment grant and some advantages to draw young farmers into agriculture, should be revised.

Installation policies of young farmers are applied by those countries where the natural rate to replace farmers is no more assured and the government has to interfere. Sometimes this type of policy appears as an

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alternative measure with anticipated retiring, in order to assure a dynamism in the agricultural sector.

In future, the capacity of rural area to maintain or to create jobs will have a major impact on unemployment rate and/or migratory flows. The pressure increase on the labour market will be important when the consolidation of agricultural exploitation and the creation of alternative occupations will begin. The elimination of semi-subsistence farms and the function of social protection can be an unproductive measure, if there are not created alternative occupations or other social protection measures are not assured.

Three aspects are essential for the rural economy diversification:
- capital investment for business development in rural area;
- conversion and qualification of agricultural labour;
- basic infrastructure necessary to install other economic activities (transport and telecommunications, water supply, sewerage system, etc.)

INCOMES IN RURAL AREA

Theoretically, in a functional market economy, the rural financial system directs towards the financial resources from those who save to those who invest for a period of time, in exchange for an interest. The saving in rural area is very poor, as long as the level of the rural income is much inferior to the average of the income economy.

In 2001, the income per capita in rural area was 27% below the income in the urban area, and this discrepancy was in continuous increase, from only 5% in 1997. In 2002, the relative risk of poverty in rural area was more than two times higher than in urban area, that is 42% for the inhabitants from the rural area in comparison with only 18% for those from urban area.

So, the rural households depend, to a greater extent, on the income from nature: 46% of the total income of a rural household comes from natural sources, in comparison with only 12% for those of urban area.

RURAL FINANCING BEFORE ADHESION

It is well known that in Romania, the banking system is not very interested to finance affairs from rural area, yet. These are perceived like
clients with an increased risk. In the same time, in the rural area there is also a tendency to reduce the banking sector activity due to low profitability.

The limited banking activity from Romanian rural area was partially compensated by financings offered by the EU through programs, already operational from the beginning of 2000 and available till 2009. The international net contribution raises to 1,672,37 million USD, to which 1,556,30 million USD are added, national co-financing, which must be guaranteed either by the public budget (national or local) or by private contribution. The level of rural financing will increase as the date of adhesion is approaching.

RURAL FINANCING AFTER ADHESION

In February 2004, the European Commission made public the proposal to finance the adhesion negotiations with Romania and Bulgaria, which was adopted by the European Council in March 2004. The financial package is limited to three years (2007-2009), because it does not exclude the necessity of new adjustments that reflect the future reforms.


<table>
<thead>
<tr>
<th>(million € in prices 2004)</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>Total</th>
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<td><strong>Financial allowances</strong></td>
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</tr>
<tr>
<td>Agriculture – rural development</td>
<td>606</td>
<td>808</td>
<td>1010</td>
<td>2424</td>
</tr>
<tr>
<td><strong>Sub-total agriculture</strong></td>
<td>855</td>
<td>1457</td>
<td>1725</td>
<td>4037</td>
</tr>
<tr>
<td><strong>Structural operations</strong></td>
<td>1399</td>
<td>1972</td>
<td>2603</td>
<td>5973</td>
</tr>
<tr>
<td>Intern existent policies *</td>
<td>244</td>
<td>248</td>
<td>252</td>
<td>744</td>
</tr>
<tr>
<td>Institutional development *</td>
<td>26</td>
<td>17</td>
<td>8</td>
<td>52</td>
</tr>
<tr>
<td><strong>Sub-total Intern Policies</strong></td>
<td>270</td>
<td>265</td>
<td>260</td>
<td>796</td>
</tr>
<tr>
<td><strong>Total assigned</strong></td>
<td>2524</td>
<td>3693</td>
<td>4588</td>
<td>10805</td>
</tr>
<tr>
<td><strong>Estimated payments</strong></td>
<td>1124</td>
<td>2220</td>
<td>2864</td>
<td>6208</td>
</tr>
</tbody>
</table>

* informative.

The acquis regarding *market measures* will be applied in Romania from the first day after adhesion. These measures will cost 732 million € for the period of 2007-2009. For countries already members in the EU, at 1st of
may 2004 the direct payments for farmers were gradually introduced during a period of 10 years. The budget provided for 2007-2009 totalizes 881 million €.

The package to endorse the rural development policy between 2007 and 2009 totalizes 2.242 million €. To this financial package, Romania will have to add its co-financing share, the total value of this package reaching about 3.000 million €.

NEW ECONOMIC ACTIVITIES THAT CAN GENERATE JOBS IN THE RURAL AREA

When we speak about alternative economic activities in rural area, first of all we have to identify what kind of activities have a real chance to develop and to create jobs in order to counterbalance the employment in agriculture. Neither sector, alone, can offer solutions for the rural area economic problems.

1. In agricultural sector

This will remain, for a significant period, the most important pillar for the economic activity and social viability of rural area. Agriculture continues to include the major part of the rural population. A coherent strategy of rural development will be based on the existence and development of a safe agricultural sector.

But the commercial sector of agriculture must be reorganized, reducing the competitiveness with the EU agriculture. Distribution networks, minutely, the inputs (pesticides, fertilisers, fodders, veterinary medicines, machines, tools, fuel, spare parts, etc.) brought closely to activities from rural area, present certain advantages as much for farmers as for retailers. Such networks are still rare in Romanian rural area and sometimes the farmers must go long distances to buy them including additional costs. These should be a daily presence in the states’ economy, constituting a family business that assures jobs for both family members. Their apparition in 13.089 villages would assure jobs for other 25.000 persons.

2. Agroturism and rural turism

These alternative activities have proved their profitability together with the change of their preference to this type of turism, in the detriment of
the „industrial” type. More often we come across the exact wording „launching/initiation of Romanian rural area as an agroturistic product”. These alternative activities will continue to develop in the Romanian rural area due to the joining between traditional and modern. The guest is attracted to the landscape still natural and very divers, to culture, customs, holidays, recreation, unique experiences and the chance to exchange authentic worths with the host.

Agroturism can be an alternative, a professional reorientation of dismissed persons or an additional source of income for the population with low incomes as long as there is a basic infrastructure and especially if there are institutions which sustain this economy branch.

3. The processing and promotion of traditional local foods and drinks

Including here also the organic agricultural products, this activity is considered another activity generating alternative incomes. SAPARD Programme finances such investments, only when they are placed in the rural area.

The proximity of raw materials has benefic effects on products’ quality, especially in the milk, meat and vegetables sector. The reduced costs of raw material transport, cheaper building plots, cheap and plentiful labour power, are some of the advantages offered in order to place the food and drinks processing industry in rural area.

4. Other activity sectors

Generally, the industrial activity is seen as an activity that can extend with more difficulty on a large scale in the rural area, but in certain rural areas close to big cities, these kind of activities have been settled. We refer to: textile industry, clothes industry, footwear industry and wood processing industry. But in the western part of the country and Transylvania this type of activity has a regional importance, and the foreign investors are much more present.

The Handicraft, present for along time in the rural area, is an activity based on the valorization of local resources (hemp, flax, osier, clay, wool, wood, etc.). Since 1989 this activity has started to decline, because the handicraft cooperatives were step by step destroyed, but it is still present in many rural areas and it still has potential to extend. One of the
Sylviculture is a rural activity with direct benefits for the local community through: plantations development, the generating effect of interfacing services, processing industries from wood cutting to furniture industry, rural tourism and through environment protection and enrichment.

Sylviculture also implies the development of infrastructure in order to have access in the forest, transport and raw wood processing, as much in the industrial sector as in the handicraft sector, nursery, berries harvesting, forest guard etc., thus being able to generate jobs and important alternative incomes.

SMALL AND MIDDLE ENTERPRISES (SME)
DEVELOPMENT IN NONAGRICULTURAL FIELDS

In 2004, in Romania about 405,000 SME were active (less than a quarter from the rural area), with a total number of 1,950,000 employees.

From objective point of view, it is difficult to claim the SME establish areas without an elementary infrastructure (roads, water and sewerage etc.). The second thought is the general lack of money of rural inhabitants, being uncapable to pay even the elementary services.

First of all there has to be a public-private partnership. With within the SAPARD programme, the road, water supply and sewerage system need cofinancing from the local community. All these have an attractiveness degree in order to establish SME, favourizing the access to education and health, people mobility (through commute) and of goods (through marketing and delivering networks).

According to European SME Observer, only 40% of the labour power in Romania is employed in Small and Middle Enterprises, in comparison with 72% from other applicant countries. If the number of Small and Middle Enterprises from the Romanian rural area doubles, there would be created about 400 – 500,000 jobs, beyond agriculture.

From about 40 programs created for the Small and Middle Enterprises, (160 million € and 20 million USD), only a few are applicable to the rural SME:

★ Rural Financing Project of the World Bank /MFP, carried out by the Romanian Bank and costing 4 million dollars;
Rural Financing Project of the World Bank /MFP, developed by RoBank and costing 5 million dollars;

- The micro-credits Program for rural antreprenors of the Economic Development Center.

Additionally to these credit lines there are about 10 grants, of which only SAPARD is meant exclusively for rural areas.

CONCLUSIONS

Once with the civilization level growth in the rural area, the people will become less dependent on agriculture, will have more money to spend and there will be needed new qualifications like motor mechanic, television mechanic, plumber, hairdresser, etc. These will attract labour power from the agricultural sector and the SME are perfectly placed in order to offer this type of services. Unfortunately, non-agricultural SME financing is still insufficient and difficult to enter, being necessary new programs.

Tabel 2. Number of jobs estimated to be created or improved by SAPARD programme implementation

<table>
<thead>
<tr>
<th>Measure nr.</th>
<th>Measure title</th>
<th>Projects nr.</th>
<th>New -thousand-</th>
<th>Improved thousand-</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1</td>
<td>The processing and commercialization of agricultural and fish products</td>
<td>1,900</td>
<td>5,700</td>
<td>13,300</td>
</tr>
<tr>
<td>1.2</td>
<td>Structures improvement for the veterinary and phytosanitary quality control</td>
<td>178</td>
<td>600</td>
<td>2,900</td>
</tr>
<tr>
<td>2.1</td>
<td>The development and improvement of rural infrastructure</td>
<td>700</td>
<td>1,400</td>
<td>-</td>
</tr>
<tr>
<td>2.2</td>
<td>Water resources management</td>
<td>14</td>
<td>800</td>
<td></td>
</tr>
<tr>
<td>3.1</td>
<td>Investments in farms</td>
<td>11,000</td>
<td>5,600</td>
<td>16,800</td>
</tr>
<tr>
<td>3.2</td>
<td>The creation of producer groups</td>
<td>500</td>
<td>480</td>
<td>17,000</td>
</tr>
<tr>
<td>3.3</td>
<td>Agro-environment measures</td>
<td>200</td>
<td>1,500</td>
<td>1,500</td>
</tr>
<tr>
<td>3.4</td>
<td>The development and diversification of economic activities in rural area</td>
<td>7,000</td>
<td>21,000</td>
<td>14,000</td>
</tr>
<tr>
<td>3.5</td>
<td>Sylviculture</td>
<td>1,700</td>
<td>2,750</td>
<td>2,750</td>
</tr>
<tr>
<td>4.1</td>
<td>The improvement of professional education</td>
<td>350</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td><strong>23,542</strong></td>
<td><strong>53,830</strong></td>
<td><strong>68,250</strong></td>
</tr>
</tbody>
</table>

* During the projects carrying out

Although new economic activities appear in the rural area, it is unlikely that there will be created enough jobs in order to absorb the excess
of active population and to reduce the level of those who are employed in agriculture. The investments that have been made for the local affaires development are still not enough to assure incomes for the entire labour power released from the agricultural sector. That is why they should look for solutions beyond the rural area.

The commute may represent an alternative, especially in rural areas around the big cities. The daily commute, from urban to rural area, is mostly connected to industry, services, education and health etc. The transport cost/salary ratio has a significant importance whether to accept a job in the rural area, being necessary to run shuttle service daily.

The seasonal jobs are also an alternative, especially during summer and autumn, when the rural labour power (and even the urban one) is temporary hired in the crops harvesting, their transport and guarding etc.

A permanent target must be the extension of culture and agricultural products with increased value (cultures for bio-energy). 1-1.5 million ha of agricultural land left untilled each year could be successfully used for energetic cultures according to biomass or for afforestation. The economic development of rural communities depend as much on urban development as on: well paid jobs, access to education, health, technology, transport and telecommunications and a healthy and lasting natural environment.

The rural area offers additional advantages, like: cheaper and ample labour power, much cheaper building lands, lower cost of living, less crowd and a more peaceful way of life.

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   zualizare/1.2.%20Sectorul%20productiv.pdf
   1%20R.pdf
Geoagiu-Băi is one of the Romania`s oldest watering places, dating from Roman colonization period. The area’s special tourism potential: thermal-mineral waters, therapeutic muds, mineral waters had attracted a great number of Romanian and foreign tourists. The resort has an accommodation base consisted of 5 hotels with 797 beds, 12 villas with 599 beds, 3 pensions with 58 beds and a sanatorium for pulmonary diseases with 100 beds. Regarding the tourism circulation, pensioners, different categories of employees, sport groups, pupils, students, one, two or more day-tourists prevail.

**Key words:** tourism, hotel logistics, public nourishment

**HOTEL KEEPER SERVICES**

Beside Herculane and Călan, Geoagiu has the inalienable privilege to represent one of the oldest Romanian watering exploitations, dating from the Roman colonization period, when the resort was called Termae Dodonae.

In the modern tourism experience, accommodation has a large meaning, ranging from a 10 room pension to a 1000 or over 1000 room building, with meeting facilities and entertainment activities, with different types and categories of endowments for tourist’s nourishment and with enough conditions for information and intermediary for commercial and special activities.

Accommodation – is the main function of hotel units, irrespectively of their type or comfort category, or their endowment degree. It supposes the existence of a space with the endowments necessary to ensure the tourist’s rest and hygiene requirements.

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*Banat's University of Agricultural Sciences and Veterinary Medicine Timișoara - Faculty of Agricultural Management*
The resort has an accommodation base consisted of 5 hotels with 797 beds and 12 villas with 599 beds, 3 pensions with 58 beds and a sanatorium for pulmonary diseases with 100 beds.

Regarding the spare time, there is a culture house with 248 seats, consisted of a show room, a library (about 15,000 books), a gambling room, sports grounds, 3 indoor swimming pools with thermal water within Diana and Flora hotels, and 2 saunas.

I. Geoagiu Tourism Office, S.C. Germisara S.A., owns:
A. Germisara Hotel – building finished in 1974, with a total accommodation capacity of 316 persons in summer, in the other seasons, especially in winter, it is not very solicited.
B. Diana Hotel – its building, in 1978, needed a private building to be demolished. Its total accommodation capacity in summer is 144 persons, and in the other seasons it is less solicited (about 100 persons). It has: a treatment base, an indoor swimming pool, a dance bar, a restaurant.
C. Villas and cottages – 26. Totally, Geoagiu Tourism Office has an accommodation capacity of 1100 beds, with increases during summer, especially in July – August, up to 1300 beds, by placing tourists in private houses and in Geoagiu-Băi resort.

II. The General Agricultural Direction has an accommodation capacity of 250 beds, with increases up to 350 beds. It owns Vlaicu Hotel, with a capacity of 270 beds. Tourist are accommodated here with tickets for treatment, because some diseases are treated here. The treatment base ensures, by its fittings: baths in warm thermal-mineral water and in pools, fittings for electric and hydrotherapy, and it also offers treatments for nutrition and metabolic diseases, gynecological, dermatological, endocrine and hematological affections.

III. S.C. Borza S.A. – private agent, it owns the former BTT hotel, with an accommodation capacity of 100 beds, with increases up to 150 beds. The hotel has a restaurant and a dance bar. Due to its modern endowments, this hotel is very solicited by Romanian tourists, but also by foreign tourists.

IV. Consumption Cooperation – it owns Flora Hotel, with an accommodation capacity of 50 beds, but with increase opportunities up to 60 beds. This hotel has a restaurant with an outdoor terrace, a sweet shop and a dance bar.
V. Handicraft Cooperation – it owns a pavilion with 30 beds, and also a restaurant. The total accommodation capacity in the resort is 1000 beds, with an extent up to 1860.

Within this resort we may find the following types of reception with accommodation functions:

### Hotels

<table>
<thead>
<tr>
<th>No</th>
<th>Hotel</th>
<th>Comfort degree</th>
<th>Number of rooms</th>
<th>Number of beds</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Aurel Vlaicu</td>
<td>2**</td>
<td>120</td>
<td>270</td>
</tr>
<tr>
<td>2</td>
<td>Diana</td>
<td>2**</td>
<td>73</td>
<td>144</td>
</tr>
<tr>
<td>3</td>
<td>Flora</td>
<td>2**</td>
<td>35</td>
<td>68</td>
</tr>
<tr>
<td>4</td>
<td>Germisara</td>
<td>2**</td>
<td>142</td>
<td>316</td>
</tr>
<tr>
<td>5</td>
<td>Valentino</td>
<td>2**</td>
<td>24</td>
<td>54</td>
</tr>
</tbody>
</table>

Source: Geoagițu-Băi town hall

Hotels offer the tourists rooms, one or many room flats properly endowed, ensuring the specific services and having receptions and services of nourishment within the build.

### Villas

<table>
<thead>
<tr>
<th>No.</th>
<th>Villa</th>
<th>Comfort degree</th>
<th>Number of rooms</th>
<th>Number of beds</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Briliant</td>
<td>2**</td>
<td>26</td>
<td>60</td>
</tr>
<tr>
<td>2</td>
<td>Smarald</td>
<td>2**</td>
<td>9</td>
<td>18</td>
</tr>
<tr>
<td>3</td>
<td>Safir</td>
<td>2**</td>
<td>6</td>
<td>12</td>
</tr>
<tr>
<td>4</td>
<td>Sanda</td>
<td>2**</td>
<td>60</td>
<td>120</td>
</tr>
<tr>
<td>5</td>
<td>Villa no. 6</td>
<td>2**</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>6</td>
<td>Ileana</td>
<td>2**</td>
<td>10</td>
<td>24</td>
</tr>
<tr>
<td>7</td>
<td>Silvia</td>
<td>1**</td>
<td>58</td>
<td>138</td>
</tr>
<tr>
<td>8</td>
<td>Aida</td>
<td>1**</td>
<td>16</td>
<td>32</td>
</tr>
<tr>
<td>9</td>
<td>Carmen</td>
<td>1**</td>
<td>10</td>
<td>21</td>
</tr>
<tr>
<td>10</td>
<td>Claudia</td>
<td>1**</td>
<td>6</td>
<td>19</td>
</tr>
<tr>
<td>11</td>
<td>Anca</td>
<td>1**</td>
<td>52</td>
<td>106</td>
</tr>
<tr>
<td>12</td>
<td>Veronica</td>
<td>1**</td>
<td>52</td>
<td>103</td>
</tr>
</tbody>
</table>

Source: Geoagițu-Băi town hall
Villas are reception structures with a relatively reduced capacity, functioning in independent buildings, with a specific structure which ensure tourists accommodation and performance of specific services.

### Pensions

**Table 3.**

<table>
<thead>
<tr>
<th>No.</th>
<th>Pension</th>
<th>Number of beds</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Doina</td>
<td>9</td>
</tr>
<tr>
<td>2</td>
<td>Venus</td>
<td>9</td>
</tr>
<tr>
<td>3</td>
<td>Cugerean</td>
<td>40</td>
</tr>
</tbody>
</table>

*Source: Geoagiu-Bâi town hall*

They are placed safely from pollution and from other elements which should threat tourist’s health and life.

The activities performed within the pensions, respectively accommodation, nourishment, amusement and entertainment, constitute a whole unit, they being part of the tourism product.

### Cottages – holiday village

**Table 4.**

<table>
<thead>
<tr>
<th>No.</th>
<th>Accommodation unit</th>
<th>Number of beds</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>S.C. Vacanţa S.R.L.</td>
<td>60</td>
</tr>
</tbody>
</table>

*Source: Geoagiu-Bâi town hall*

Cottages are made of wood, consisted of a room and of a small hall. Their placement ensure a favourable microclimate, without pollution sources and other elements which should threat tourists health and life.

Within the resort we also meet a “camping village” with a capacity of 100 camping places, visited in June-September by about 6120 tourists, especially at weekends.

### PUBLIC NOURISHMENT SERVICES

Public nourishment, as part of tourism product, respectively of base services, determines the quality of tourism performance, influences the content and the attractivity of tourism offer, with major implications in tourism fluxes dimensions and orientations.
Each unit profile could be always made by specific projects, because each unit must react to the needs of the consumers within its placement area.

Public nourishment profile activity performs with the participation of three groups of units: units for serving consumers, production units and storing and keeping units.

Public nourishment service, even if it has a base function within the tourism services assemble, is not obligatory present in each accommodation unit. There where it functions, it requires the presence of a variety of unit compartments and types, which should satisfy the need for food for all guests at any time, and also the need for amusement.

In Geoagiu-Băi resort, we meet at the moment the following types of public nourishment units:

Restaurants placed within the accommodation units

<table>
<thead>
<tr>
<th>No.</th>
<th>Unit name</th>
<th>Number of seats</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Restaurant Diana</td>
<td>120</td>
</tr>
<tr>
<td>2</td>
<td>Restaurant Aurel Vlaicu</td>
<td>150</td>
</tr>
<tr>
<td>3</td>
<td>Restaurant S.C. Impex Borza S.R.L.</td>
<td>250</td>
</tr>
<tr>
<td>4</td>
<td>Restaurant Valentino</td>
<td>80</td>
</tr>
<tr>
<td>5</td>
<td>Restaurant Sanda</td>
<td>100</td>
</tr>
</tbody>
</table>

A large assortment of meals (warm and cold snacks, drinks, meals, salads, cakes), sweets, pastry products, ice-cream, fruit, non-alcoholic and alcoholic drinks, tobacco products are served in these nourishment units, depending on the minimal assortment established by the legal norms. Banquets and receptions are organised within these units as supplementary services.

Depending on the consumer affluence, these units can function with a schedule only for breakfast, lunch and dinner, or non-stop, with ordered services or a la carte services.

Specialized restaurant

<table>
<thead>
<tr>
<th>No.</th>
<th>Unit name</th>
<th>Number of seats</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Restaurant Zahana S.C. Zahana Salicom S.R.L.</td>
<td>50</td>
</tr>
<tr>
<td>2</td>
<td>Flora Rotisserie</td>
<td>24</td>
</tr>
<tr>
<td>3</td>
<td>Mona Rotisserie</td>
<td>34</td>
</tr>
<tr>
<td>4</td>
<td>Agrementul Rotisserie</td>
<td>50</td>
</tr>
</tbody>
</table>
The first gastronomical unit serves products all day long (pork, beef and lamb specialties) and subproducts made of non-portioned meat (liver, kidney, heart, spleen, marrow), “mici”, sausages, grilled and chosen by consumers from shop windows or from exhibit trays. According to its specific, this unit can also offer “belly soup”, “tochitura”, season salads, pickles, cakes, alcoholic drinks (appetisers and wines).

Flora and Mona rotisseries serve the consumers meat products roasted (meat specialties, beef, pork), “chebab” with garnishes, some fast food (cheese, eggs, vegetables), salads, chicken soup, desserts, refreshing drinks, coffee, wine (especially red wine served with carafes), some alcoholic refined drinks.

The managers of the day bar offer the consumers a large range of services, especially alcoholic and non-alcoholic drinks (simple or mixed) and some snacks: sandwiches, pies, sweet specialties, ice-cream, tobacco products – cigarettes and entertainment opportunities (low music, television set, mechanical games). During summer, some terraces are also used.

**BALNEARY TREATMENT SERVICES**

The multilateral and reasonable capitalization of the Romanian balneary-climatic resources was made after the Second World War, especially in 1950, when special studies regarding the chemical content and the methods of using mineral waters were carried out.

In the centre of western Romanian tourism attraction is placed Geoagiu-Băi, a balneary-climatic resort, located in an easy to access area; it offers modern rest units, balneary cure and treatment. The therapeutic natural agents favor the application of a naturist cure by aero and heliopathy, differentiated by groups of patients and seasons.

The thermal-mineral waters and the therapeutic mud represent the resort’s natural therapeutic agents.

The thermal-mineral waters from Geoagiu proceed from high depth and distance, after covering an underground range of about 10-15 km, they being about 15.000 years old. Their qualities are recommended for internal use, but also for the external one. So, internally, they are recommended in urinary affections which require diuresis cures, and externally in a large range of affections, such as prearthrosis condition (prophylactic treatment in
arthritides threaten professions), degenerative rheumatism, abarticular rheumatism, post articular rheumatism algic states, focus affections, affections of peripheral nervous system, post traumatism muscle-articular after-effects.

Geoagiu’s therapeutic mud is recommended in the treatment of prearthrosis conditions (prophylactic treatment in arthritis threaten professions), degenerative rheumatism – spinal column and peripheral articulation arthritis (excepting clinical-biological reactivation periods), periartthritis abarticular rheumatism (besides active periods), algic states post polyarticular acute rheumatism or focus affections in clinical-biological stabilization periods, post traumatisms muscle-articular and nervous peripherous after-effects, dermatological diseases (chronic eczema, psoriasis).

TOURISM CIRCULATION

In 2003, Geoagiu-Băi resort was visited by about 14.122 tourists, come for treatment (so-called forced tourism) and about 54.000 tourists, come for amusement (voluntary tourism), totally 68.122 tourists. Among the 14.122 tourists come and accommodated in the above mentioned accommodation units, 14.032 are Romanian tourists and 90 are foreigners. We can conclude from the last year professional structure analysis that pensioners prevail (owing to some facilities for this category), different categories of employees, sports groups, pupils, students, one, two or more day tourists. Regarding the distribution by ages, the young ones visit the resort at weekends and the mature ones visit all year long, especially in summer. By their living places (a total number of 885), tourists come from all over the country. Following the number of those arrived in this resort, analysing our available data, in 2003 the number of those arrived for treatment was 14.122, and regarding those arrived for amusement, it was 54.000. It is worth to mention the fact that in 2003 the tourists number decreased, fact caused by the general economical-social conditions in Romania.
Fig. 1. Tourist came in Geoagi-Băi station in 2003

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Agriculture, together with forestry and forestry exploitation an important contribution to form the brute national product, and the employed population within these economical fields represents over a third from the total of the country’s employed population. We can conclude from this work that, based on the advanced countries experience, the practicability of a viable agriculture, with a proper technical endowment and with the production agents necessary to observe the production technologies, leads to the increase of work productivity, decrease of employees in agriculture, determining the development and the diversification of production and logistic activities for the rural economy.

Key words: rural area, agricultural exploitations, occupational potential

In order to characterize the rural area from an economical point of view, the research within the PHARE 1998 Program focused on the following subcriteria:
- agricultural potential;
- forest potential;
- tourism potential;
- industrial potential;
- agricultural area potential;
- property structures;
- population occupation degree;
- diversification of economical activity.

On the 31st December 2002, in Romania, the distribution of the agricultural fields by pretability classes was:

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* Banat's University of Agricultural Sciences and Veterinary Medicine Timișoara - Faculty of Agricultural Management
Field distribution by pretability classes

Table 1

<table>
<thead>
<tr>
<th>Pretability class</th>
<th>Using method</th>
<th>Total agricultural</th>
<th>Arable</th>
<th>Pastures and hayfields</th>
<th>Vineyards and orchards</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Thous and ha</td>
<td>%</td>
<td>Thous and ha</td>
<td>%</td>
<td>Thous and ha</td>
</tr>
<tr>
<td>Total surface from which in pretability class:</td>
<td>14857</td>
<td>100</td>
<td>9399</td>
<td>100</td>
<td>4937</td>
</tr>
<tr>
<td>I – very good</td>
<td>410</td>
<td>2,8</td>
<td>355</td>
<td>3,8</td>
<td>54</td>
</tr>
<tr>
<td>II – good</td>
<td>3656</td>
<td>24,6</td>
<td>3353</td>
<td>35,7</td>
<td>220</td>
</tr>
<tr>
<td>III – intermediate</td>
<td>3083</td>
<td>20,8</td>
<td>2364</td>
<td>25,1</td>
<td>597</td>
</tr>
<tr>
<td>IV – bad</td>
<td>3621</td>
<td>24,4</td>
<td>1747</td>
<td>18,6</td>
<td>1763</td>
</tr>
<tr>
<td>V – very bad</td>
<td>4067</td>
<td>27,4</td>
<td>1580</td>
<td>16,8</td>
<td>2303</td>
</tr>
</tbody>
</table>

Source: The Romania’s statistic year book, 2003

This situation imposes an intensive character for the agricultural production. In rural area, the agricultural field mean that dues to an inhabitant is 1,4 ha. This indicator is not uniformly distributed in territory, it varies depending on the agricultural surface of each commune and on that’s commune population, which differs depending on the economical-social development degree in territorial profile.

The forest potential shows a special importance in rural areas because forest has an economical role, but also a social and environmental one. The Romanian forest fund has been decreasing continuously since 1990.

Development of forest fund

Table 2

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Forest surface</td>
<td>6236</td>
<td>6227</td>
<td>6226</td>
<td>6223</td>
<td>6225</td>
<td>6239</td>
</tr>
<tr>
<td>Resinous</td>
<td>1883</td>
<td>1868</td>
<td>1861</td>
<td>1856</td>
<td>1853</td>
<td>1856</td>
</tr>
<tr>
<td>Beech</td>
<td>1939</td>
<td>1942</td>
<td>1943</td>
<td>1951</td>
<td>1956</td>
<td>1973</td>
</tr>
<tr>
<td>Oak</td>
<td>1129</td>
<td>1127</td>
<td>1122</td>
<td>1120</td>
<td>1117</td>
<td>1117</td>
</tr>
<tr>
<td>Different species</td>
<td>1285</td>
<td>1290</td>
<td>1300</td>
<td>1296</td>
<td>1299</td>
<td>1293</td>
</tr>
<tr>
<td>Other areas</td>
<td>131</td>
<td>140</td>
<td>141</td>
<td>143</td>
<td>142</td>
<td>149</td>
</tr>
<tr>
<td>Total</td>
<td>6367</td>
<td>6367</td>
<td>6367</td>
<td>6366</td>
<td>6367</td>
<td>6388</td>
</tr>
</tbody>
</table>

Source: The Romania’s statistic year book, 2003
After the application of landed fund law, 5-5.2 millions owners have appeared in Romania, from which 40-50% are not present at property, and 20-25% are wage-earning in rural area. Countrymen that have no other income source than agriculture represent 20%.

If we take into consideration the fact that half of countrymen are old (over 65-70 years old), we can conclude that there are in our country 500-600,000 countrymen able to become short term farmers. The law’s immediate effect was to change the economical countryman status. The reconstitution of property right changed the type of agriculture exploitation, throwing into confusion the whole Romanian landed fund structure after 1991.

In Romania, after the publication of landed fund, associated agricultural exploitations and lease exploitations (the leaser being the economical association – ex IAS or SMA) were favoured, although in countries with a very advanced agriculture there is a perfect identity between the property’s private character and the private agricultural exploitation.

An ample process of creating some new agricultural structures (property structure, agricultural exploitation structures, production structure, technological and marketing structures etc.) is developing at the moment, because the new type of agriculture property (private property more than 80%) eliminated almost totally the former structures.

**THE AGRICULTURAL EXPLOITATION – AN IMPORTANT AGENT IN THE ECONOMICAL RURAL DEVELOPMENT**

Within the agriculture development politics, we must start from the observation that the most advanced exploitations in the E.U. are the private family ones, managed under own supervision or in leasing.

In Romania, the private family exploitations are going to exist for long time under the form of rural households and of family agricultural farms. Because of the economical importance of these exploitations, they must be supported with economical facility eases and technical offers in order to ease the work, to increase the productivity, to enhance the production, as follows:

- farmers’ access to an advanced and cheap agricultural fund;
- ensuring a high quality biological material;
- exempting these households from global income taxation;
- a mutual agricultural credit system.

Evolution of the Romanian agricultural exploitations is presented in Table 3.

### Evolution of private agricultural exploitations

**Table 3.**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>The agricultural surface privately exploited thousand ha</td>
<td></td>
<td></td>
<td>11212</td>
<td>11381</td>
<td>11539</td>
<td>11612</td>
<td>11690</td>
<td>11662</td>
</tr>
<tr>
<td>A: Agricultural associations with legal person</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number</td>
<td>3970</td>
<td>3973</td>
<td>3759</td>
<td>3913</td>
<td>3578</td>
<td>3573</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agricultural surface Ha</td>
<td>1770</td>
<td>1732</td>
<td>1751</td>
<td>1715</td>
<td>1558</td>
<td>1416</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean surface Ha</td>
<td>446</td>
<td>436</td>
<td>466</td>
<td>438</td>
<td>435</td>
<td>396</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B: Simple associations</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number</td>
<td>13741</td>
<td>15915</td>
<td>15107</td>
<td>9489</td>
<td>7175</td>
<td>6264</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agricultural surface Ha</td>
<td>1537</td>
<td>1596</td>
<td>1440</td>
<td>1000</td>
<td>950</td>
<td>869</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean surface Ha</td>
<td>112</td>
<td>100</td>
<td>95</td>
<td>105</td>
<td>132</td>
<td>139</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C: Individual farms</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number</td>
<td>3578</td>
<td>3597</td>
<td>3626</td>
<td>3973</td>
<td>3946</td>
<td>4120</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agricultural surface Ha</td>
<td>7905</td>
<td>8053</td>
<td>8348</td>
<td>8897</td>
<td>9182</td>
<td>9377</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean surface Ha</td>
<td>2,21</td>
<td>2,24</td>
<td>2,30</td>
<td>2,24</td>
<td>2,33</td>
<td>2,28</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Source: M.A.A.P.*

As a result of landed fund law (Law 18/1991) application and reconstituting the property on the old placements, the property division got to equalize the inter-war one, as follows in the next table:
Medium size of propertys

<table>
<thead>
<tr>
<th>Extent group</th>
<th>1948* Number</th>
<th>%</th>
<th>1999 Number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under 0,5 ha</td>
<td>901,016</td>
<td>10,4</td>
<td>504,353</td>
<td>12,2</td>
</tr>
<tr>
<td>0,5-1 ha</td>
<td>1,100,852</td>
<td>20,0</td>
<td>1,115,119</td>
<td>27,0</td>
</tr>
<tr>
<td>1-3 ha</td>
<td>2,311,071</td>
<td>42,0</td>
<td>1,350,775</td>
<td>32,7</td>
</tr>
<tr>
<td>Total 0-3 ha</td>
<td>4,312,939</td>
<td>78,4</td>
<td>2,970,247</td>
<td>71,9</td>
</tr>
<tr>
<td>3-5 ha</td>
<td>697,318</td>
<td>12,7</td>
<td>686,696</td>
<td>16,6</td>
</tr>
<tr>
<td>5-10 ha</td>
<td>363,678</td>
<td>6,6</td>
<td>448,047</td>
<td>10,9</td>
</tr>
<tr>
<td>Over 10 ha</td>
<td>126,203</td>
<td>2,3</td>
<td>14,621</td>
<td>0,4</td>
</tr>
<tr>
<td>Private companies and associations</td>
<td>-</td>
<td>-</td>
<td>9,837</td>
<td>0,2</td>
</tr>
<tr>
<td>Total</td>
<td>5,500,138</td>
<td>100,0</td>
<td>4,129,448</td>
<td>100,0</td>
</tr>
</tbody>
</table>

Source: M.A.A.P.

* Agricultural census 1948.

As a result of landed fund law application, a large number of families became again owners of their agricultural fields. In 1999, the total surface given back to its owners was 85,4% (respectively 8,018,314 ha from a total of 9,386,193 ha). As a consequence of analyzing the official statistic data, a high proportion could be observed regarding the pensioners households (65,4% per total and 94,0% from the rural ones), which can be explained by the fact that this group includes the agricultural pensioners, but also by the fact that the mature ones were those who benefited especially by the property right reconstitution. The degree of exploitation division is a special problem that faces the Romanian agriculture in the transition step.

It is necessary to exist and run modern exploitations with extents corresponding to the technological process requirements, fact that also results from the European agriculture experience.

For the future, the creation of a subsiding system based on transparence and economical efficacy criteria, and also the support to supply agricultural machines by creating the proper financial and legal instruments for the agricultural producer are taken into account.

There are many programs that support the agricultural activity, from which we mention at the moment SAPARD program – Program for agriculture and rural development, whose application starts in 2000 and is going to take 7 years. This program finances direct activities oriented in order to line up Romanian agriculture to the European standards related to production, processing and marketing the agricultural products, but also to
solve the rural areas problems: lack of infrastructure, lack of financial resources, the educational low level, population ageing.

The conclusion is that we can’t benefit by the results of agricultural programs application without constituting preliminary a mean size exploitation to permit the development of such an activity in economical efficacy conditions.

**THE INCREASE OF THE MEAN DIMENSION OF AN AGRICULTURAL EXPLOITATION**

The increase of the agricultural exploitation dimension is an essential condition for it to become permanent, to perform an efficient activity that could offer the farmers a decent life.

**Forecast of the mean dimension of private agricultural exploitation**

<table>
<thead>
<tr>
<th></th>
<th>UM</th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individual households</td>
<td>Ha</td>
<td>2,38</td>
<td>2,40</td>
<td>2,49</td>
<td>2,59</td>
<td>2,70</td>
</tr>
<tr>
<td>Family association</td>
<td>Ha</td>
<td>130,43</td>
<td>143,43</td>
<td>172,41</td>
<td>202,93</td>
<td>233,99</td>
</tr>
<tr>
<td>Agricultural companies</td>
<td>Ha</td>
<td>423,57</td>
<td>417,04</td>
<td>394,85</td>
<td>369,02</td>
<td>344,48</td>
</tr>
</tbody>
</table>

Source: M.A.A.P.

In order to support the founding of modern and viable (commercial) agricultural exploitations, it is necessary to apply the following short term measures:

- to set the legal frame which permits access to advantageous credits;
- to set the institutional frame (supporting funds for agricultural producers, insurance/reinsurance funds against natural disasters).

The country household represents a social structure specific to rural area, being the rural oldest and the most lasting structure and social category. Agricultural household is part of a complex agricultural structures assemble, which in Romania consisted of the following elements:
1. landed properties 5,0-5,3 mil. ha;
2. rural households (from which 1,5-1,1 families – private family agricultural exploitations) 3,6 mil. ha;
3. agricultural households 3,1 mil. ha;
4. families (agricultural exclusively) 1,0 mil. ha;
5. family associations 15031-1,5 mil. ha;
6. agricultural associations 3956-1,7 mil. ha;
7. commercial companies 684-1,7 mil. ha;
8. institutes (research centers, model farms) 120-0,1 mil. ha.

Because most of the occupied population in rural area works in agriculture and forestry, this becomes a decisive factor to refresh the rural economical life. At the moment, the structure of occupied property distributed by age in agriculture and forestry is:

### Proportion of occupied population

**Table 6.**

<table>
<thead>
<tr>
<th>Age group</th>
<th>Totally occupied population (thousand people)</th>
<th>From which in Agriculture, hunt and forestry</th>
</tr>
</thead>
<tbody>
<tr>
<td>15-24</td>
<td>11,3%</td>
<td>11.6</td>
</tr>
<tr>
<td>25-34</td>
<td>29,1%</td>
<td>19.8</td>
</tr>
<tr>
<td>35-49</td>
<td>35,2%</td>
<td>23.6</td>
</tr>
<tr>
<td>50-64</td>
<td>18,3%</td>
<td>28.5</td>
</tr>
<tr>
<td>Over 65</td>
<td>6,1%</td>
<td>16.5</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>

*Source: The Romania’s statistic year book, 2003*

According to statistic data, half of the population employed in agriculture and forestry is over 30. The low level of agriculture incomes and the lack of another non-agricultural activities don’t stimulate the young to stay in the rural area, so the mature need to work fields by themselves. So, there are many very young people, but also a great number of mature persons on work market.

In order to encourage the mature ones to retire, the Government should offer stimulants to leave the exploitations (for example a life annuity for the rest of life), and they should offer the young ones some “helps to set” in the rural area agricultural farms. They should also offer some other facility eases which should permit the transformation of the nowadays
private family exploitation of subsistence into a commercial private family exploitations, which mainly produce (over 90%) for market, but also to ensure own consumption.

The rural area has a strong tourism potential, that is why the Romanian villages with a natural and a cultural-spiritual potential are attracted to join the internal and international tourism networks, in many Romanian districts. Some organizations dealing with such activities have been founded, for example The national Agency for Rural, Ecologist and Cultural Tourism (ANTREC – Agenția Națională de Turism Rural, Ecologic și Cultural), The Romanian Federation for Mountain Development.

**BIBLIOGRAPHY**

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The political events after 1989 have generated multiple changes in the countryside. After the application of the Law No. 18/1991, in Romania, the agricultural associative and on lease exploitations have been favoured, while in the countries of the EU the private-familial agricultural exploitations prevail.

Key-words: exploitation, dimension, laws

The political events after 1989 have generated multiple changes in the countryside.

The general framework of the agriculture’s privatization was established by the Law on the land resources – the Law No.18/1995 and its regulation of application and by other further laws: -the Law No.36/1991 regarding agricultural societies and other forms of association in agriculture concerning livestock exploitations, the Law No.16/1994- the Lease Law, the Law No.169/1997 – on modification and completion of the Law No.18/1991, the Law No.54/1998 – on juridical circulation of the land, the Law No.1/2000 – on reconstitution of the property right over agricultural and forest land, GEO no.108/2001- on modification and completion of the Law No.18/1991, as well as the Law No. 1/2000, the Law No.198/2001 – on the agricultural commercial societies with majority capital of state, the Law No.166/2002 – which applies the GEO No.108/2001- on the agricultural exploitations.

The Law No.18/1991 led to three types of land property rights: the public domain, the state’s private domain and the private domain of public persons. Because a series of shortcomings were noticed after the application...
of this law (especially in the domain of reconstitution of the property right), it was modified by the Law No. 169/1997, which brought methodological changes; those changes haven’t been observed due to the issuing of the Law No. 1/2000, which brings completions and changes on the reconstitution of the property right to 50 ha of agricultural land (the Law No. 18/1991 limiting it to 10 ha) and 10 ha of forest land; where there is no sufficient agricultural land, compensations shall be granted for the difference of non-retroceded land, as well as restoring the property right on the land belonging to agricultural universities and agricultural stations for research.

If the Law No. 1/2000 permitted the setting up of private commercial agricultural exploitations, GEO No. 108/2001 brings restrictions to it by preventing the developing of private-domestic farms by stimulating and financially supporting some of the large farms which could be formed either through association or through leasing.

The agricultural exploitation represents a fundamental notion in the economic theory, meaning a productive entity which constitutes the economical structure of rural environment in general, and source of existence for more than half of Romanian population, in particular.

The GEO No. 108/2001 on agricultural exploitations comprises 25 articles, of which only seven refer properly to the subject, other seven describing the support which shall be granted to them, while the rest of them contains several general considerations.

The Law No. 166/2002 which sanctions the above mentioned GEO, changes and abrogates 17 articles and chapter titles, the changes being grouped in 24 articles which make a text as large as the initial normative act, justifying in this way the rejection of the GEO and the obligation of the government and of the Ministry of Agriculture to elaborate an adequate document.

The methodological norms on the application of the GEO No. 108/2001, issued by governmental decision, have been modified in their turn in less than 6 months from publication, by another governmental decision, with a text of similar dimensions.

The undeclared purpose of the legislative measure led to the omission of some essential aspects, such as the legal framework of constitution and functioning of agricultural exploitations, as well as to a series of inadvertencies in the content of the elaborated text, such as those in
defining the agricultural exploitations and implicitly, in the other aspects regarding the typology, the dimension etc.

The agricultural exploitations are complex forms of property organization which turns to good account the land, the animals and the other means of production integrated in an unitarian system, with the purpose of carrying out works and services and of efficiently obtaining agricultural products (this definition as given according to the GEO No. 108/2001).

The normative act pays attention especially to “the dimension of the agricultural exploitations” assigning to it an entire chapter.

The title of the second chapter “The Dimensioning of the Agricultural Exploitations” would have implicitly claimed that the text should refer to the regulation of the dimensioning action and possibly, to the methodology which establishes the dimension of the agricultural exploitations. The GEO refers to the minimum dimension of commercial agricultural exploitations, while the law which sanctions the GEO concerns the minimum dimension of agricultural exploitations on the whole.

The dimension of agricultural exploitations can be expressed not only through the land area of the number of animals held (which don’t always render the real size, the proportions and the activities carried on), but also through their economical dimension determined on the basis of the value of the standard gross margin.

The minimum dimension of the agricultural exploitations, according to the Law No. 166/2001 – of 110 ha in the plain, 50 ha on hillsides etc have nothing to do with Romania and the rest of Europe, and an article attempts to remove from this regulation the familial agricultural exploitations, while in the EU most of the agricultural exploitations are familial (the weight of the familial labor power represents more than 95% of the labor power in the agricultural exploitations).

Another problem generated by this law regards the inclusion of population’s households in the same category as the individual exploitations, placing the pastures used by them and administrated by mayoralties, in the category of “the agricultural units with legal personality”.

According to the Order No. 620/2003, in the Register of Agricultural Exploitations enter not only the agricultural exploitations established according to the Law No. 166/2001, but also the agricultural producers which hold an agricultural land larger than 0,3 ha, regardless of the category
of land (solaria, hot houses, pastures, arable land) and of agricultural units and of livestock exploitations respectively.

The drawbacks of this law, not only that they didn’t help in consolidating the agricultural exploitations, but also hindered their activity by not providing them a valid reference frame.

After the application of the Law No. 18/1991, in Romania, the agricultural associative and on lease exploitations have been favoured, while in the countries of the EU the private-familial agricultural exploitations prevail.

The agricultural activity doesn’t bring a certain income and that’s why it didn’t favour the developing of the landed market. Not even after the application of the Law No. 54/1998 on the juridical circulation of the land, contributing very little at the increase of the agricultural exploitations’ territorial dimension.

The economical activity of an agricultural exploitation cannot be carried out efficiently unless there are certain size limits at which the technical-material basis of the production should be used with increased efficiency.

The optimum economical dimensions of an agricultural exploitation are those which permit the best utilization of resource and of other factors of production, achieving in this way a maximum economical efficiency.

After 1990, in Romania three types of agricultural exploitations have operated: the individual type (the peasant type), the associative type and the type of agricultural societies, the first being the prevailing one.

The straightening out of the Romanian agriculture must have in view both the sustaining of the familial households in order to become viable and the establishment of some economical dimensions in the case of the cooperative associations. An essential problem is the gradual constitution of viable exploitations oriented on the commercial type of agriculture.

The exploitations which have dimensions under the limits imposed by the GEO 108/2001 are considered familial agricultural exploitations which will be able to benefit from the services of consultancy free of charge and will be stimulated to practice ecological agriculture through some supplementary facilities, established by certain special laws. According to the Law No. 108/2001, the familial associations will be stimulated (the Law No. 36/1991) because private-familial exploitations have an average surface of almost 2 ha.
The forming and developing of some viable agricultural exploitations can be made with the help of the state (through an advantageous system of credits) when in the process of buying land by the agriculturist who have the vocation of becoming farmer.

Table 2

The forecast of the average dimension of private agricultural exploitations in Romania

<table>
<thead>
<tr>
<th>Unit</th>
<th>2000</th>
<th>2001</th>
<th>2004</th>
<th>2008</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individual households</td>
<td>2.38</td>
<td>2.40</td>
<td>2.49</td>
<td>2.59</td>
<td>2.70</td>
</tr>
<tr>
<td>Familial associations</td>
<td>130.43</td>
<td>143.10</td>
<td>172.41</td>
<td>202.93</td>
<td>233.99</td>
</tr>
<tr>
<td>Agricultural societies</td>
<td>423.57</td>
<td>417.04</td>
<td>394.85</td>
<td>369.02</td>
<td>344.48</td>
</tr>
</tbody>
</table>

Source: MAPDR

A familial-private association shall hold the land which surrounds the agricultural household and may be 1-5 ha of land in the plane at a considerable distance from the household and divided into lots. According to the standards of EU, Romanian individual exploitations do not correspond to the communitarian ones – the subsistence agriculture is very important for the rural population, the self-consumption being important for a series of products.

In this phase, EU’s policy is to encourage and support small exploitations with the purpose of stabilizing the rural environment both in developed countries and in the new member ones.

West-European countries’ experience in the domain of agricultural exploitations represents a model for Romania.

In Romania there is a need for elaboration of a clear conception regarding the exploitations’ size, their structure, the finances for studies and design; also, the Romanian state has the obligation to support the phenomenon of rural developing and equipping, seen as a certain way of economical straightening out through the consolidation of agricultural exploitations.

At the European Conference of Salzburg (November 2003) the perspectives of rural politic in widened Europe were discussed and proposals were made for the period 2007-2013.

In this way the necessity of increasing the competitiveness of agricultural exploitations was highlighted; this increase has to become the
key of the rural development politic of the new member states, as well as in the candidate ones, including Romania.

In this phase EU has established certain measures regarding the subsistence farms as follows:

- the increase of incomes for the transition period, in which intensive reorganization and investments are made;
- the orientation to the supporting of the semi-subsistence farms with land areas of 3-15 ha, which have a determinant role in the agriculture of the new member states;
- supporting the semi-subsistence farms in order to prove that they can become economically viable and that they will align to the EU’s standards in matters of quality, food and environment security;
- establishing a fixed sum of EUR 750 granted to each farm per year.

Within the new concept, the semi-subsistence farms of the new member states must be prepared to cope with the transition’s problems, in the conditions of the European market competitiveness.

In Romania, at the moment of accession (1 January 2007), there will probably be three types of agricultural exploitations:

1. commercial exploitations – competitive, with an economical dimension that will directly provide them the statute of eligible exploitation as early as the moment of accession;
2. familial-private exploitations – which can become eligible if they are assisted and financially supported;
3. subsistence exploitations – which will be encouraged to have a manifold activity and to obtain alternative incomes.

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674
The work proposes a mathematical analysis about the variation of the native population from Timis County communes. The object of this work is not to analyze the reasons of these changes; it is the creation of a database, which should contain mathematical index concerning the interfering modification size.

Key words: population, demographic evolution

Introduction
Analyzing the data from the National Statistic Institute concerning the Timis county commune population between 1990-2004 it can be noticed that there are significant differences in their sizing. However, a simple over look does not offer specific information about the demographic trend, being necessary the calculation of index, which should express these facts.

The aim of the method
It is proposed a regressing straight line for the points \((x_i, y_i)\), where \(x_i\) represents the calculation of the period 1990-2004, and \(y_i\) means the population a commune from this period. So, the straight line has the following equation \(d: y = b_0 + b_1x\), \(a, b \in \mathbb{R}\). It is known the fact that \(b_i\) represents the “angular coefficient” or the straight line “slope”, this represents in fact the increase, decrease or the intensity of the development process.

If \(\alpha\) is the angle between the straight-line \(d\) and the axis Ox than:
\[
b_1 = \tan \alpha \Rightarrow \alpha = \arctan b_1
\]

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– Faculty of Agricultural Management
** SCA Utviniș, Arad
The experimental data presentation

In the following table are presented the data mentioned above [1] concerning the demographic evolution between 1990-2004 of the Timis county communes. There are presented the coefficients of the regression function $b_0$ and $b_1$, but also the values of $\alpha$ expressed in radians. So the negative values of $\alpha$ are equivalents with a decrease of population, and the positive with an increase of population. Also there are presented aspects concerning the population variation in the whole Timis County, making possible a comparison between the communes and the entire county. Finally, there are presented some data graphics of most representative communes.

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<th>$b_1$</th>
<th>$\alpha$ (rad.)</th>
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Figure 1-24. Variation of the native population for a few representative localities from Timis county

Results and arguments
From the whole of 72 communes of Timis County, it can be observed that 54 have negative values of $\alpha$ meaning a decrease of population, and 18 with positive values of $\alpha$ representing an increase of population. More exactly they are classified as follows:

- 54 communes have values of $\alpha$ between (-1,6>-1), meaning a pronounced decreasing tendency of population;
- between [-1,0) meaning a slow decrease, non of them is classified
- 2 communes have $\alpha$ values between (0,1), meaning a slow decrease
- 16 communes have values of $\alpha$ between (1,6), meaning a pronounced increasing tendency of population

From the information presented above, it can be noticed that the majority of Timis county communes have a decreasing tendency of population, only few of them have an increasing tendency.

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The study of communication, the analysis of the main means of communicating, the defining of the tools of communication within an organization, all represent a necessity generated by the fact that we all live in an universe of symbols and conventions in which, in order for us to be understood, to correlate our actions, we need a common linguistic field.

Key words: communication, concept, language.

For the vast majority of people, to communicate means “to bring to one’s attention” or “to inform”.

The professionals in the field of communication believe that the beginnings of the study of this process date from more than two thousand years ago (Prutianu 1998). In Ancient Greece, there were laws to regulate the right of each citizen to be his own advocate. Those who mastered the art of communicating became political leaders and climbed to the top of the ladder in their own societies. For them, the symbol of communication was the god Hermes, mediator between humans and gods.

Types of communication

The human relationships, regardless the field in which they form, imply the existence of communication. It consists of the exchange of ideas through both verbal and non-verbal means. Pushing words aside, we can still realize what others try to say, understand what they try to convey.

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Using body language, colors, time, silence, space, we can get a larger picture.

The language of colors

Colors are part of our everyday life. Beyond feelings, they express also a side of our personality.

The vast array of colors surrounding us is part of our daily routine, and, like other usual things, we tend to overlook it. First we notice those colors in contrast with the background. Those are extraordinary.

Colors impress directly upon our feelings. They can convey better a certain message, which given a different shape, could be easily overlooked or ignored.

Color, the carrier of various meanings of both esthetic and affective quality, plays an important role in our life. The lack of color affects not only communication, but also the whole spiritual being of both man and society.

The language of space. Proxemic

One of the important fields of non-verbal communication is that of relationships as they are defined by space. Territory is important for man, as a species, although we are seldom being aware of it, except when it is intruded upon.

E. Hall (1969) defines proxemic as the science which studies how people organize their space – the distances between people during their daily interactions, the placement of houses and buildings, as well as that of cities.

In other words, when one speaks of proxemic, one can think of the degree of closeness to those around us, as well as how our communicating with them is influenced by this closeness.

E. Hall believes that there are four types of informal space: private space (for embraces and whispers), personal space (for conversation between close friends), social space (for conversation between acquaintances), public space (for public speeches).

In communication, distance represents a symbol whose meaning differs greatly from culture to culture. Distances between people vary function of their own interpretation.

Westerners regard space as the distance between objects. For Americans, space is empty. The Japanese understand the shape and the
arrangements within a certain space as having a palpable meaning, see their artistic floral arrangements. In other cultures, looking someone in the eyes is a sign of being rude, or lack of respect.

In the Middle East, people use masks. The custom of women wearing veils allows them to hide their true emotions.

The German business people who visit the United States, perceive the open doors of the office as a sign of an unusually relaxed and unprofessional attitude. The Americans on the other hand, believe that the closed doors of an office in Germany hide a conspiracy or some sort of a secret operation.

Space is the criteria used for establishing a territory in every field. People make sure that their ownership over that territory is well understood and respected, and consequently, they are determined to defend it against any intrusions. Territoriality is established so rapidly, that no later than the second part of a series of lectures, the majority of the audience returns to the same seats. Moreover, if one person changes seats and occupies the seat previously used by another, one can notice a certain degree of annoyance or irritation expressed by the latter. This public personal zone, the office, becomes part of the defended territory, no matter how subtle the defenses.

What is your immediate, involuntary reaction, should you get to your office one morning and see someone else sitting in your chair?

In the case of having two chairs in the same open office space, the one closest to the tenant of that office, becomes the next point of proxemic control.

**CONCLUSIONS**

Proxemic and non-verbal communication are the main revelations of a new world, a world that surrounds us, in which we live and work, without realizing its existence and knowing its code and meanings. Proxemic varies function of the person and the culture in which they grew.

It is very important to try to understand, notice, analyze, and assimilate both our proxemic, our non-verbal communication, and that of the others.

Non-verbal communication is extremely loud. It sends messages that are more clear even than the words, and helps us to better understand those around us and to communicate more efficiently. This solves the problem of time lost in unsuccessfully trying to communicate, and eliminates
frustration, which, due to its cumulative effect, can lead to conflict. It also is a money saver: more efficient communication means less failed projects and less effort directed toward unprofitable actions.

Non-verbal communication is within us and within those around us. We may not know it, but it manifests itself.

It would be better if we were more open and more receptive to how others see things in both proxemic and non-verbal communication, as well as in other fields, and if we tried to judge each situation in which we have to decide or act, not only by our own views, but by the other people’s opinions as well.

**BIBLIOGRAPHY**


Leadership is a part of management; it is the ability to convince the other to look after some define objectives. It is the human factor, which assure the coherence of a group and is motivating it to attain some purpose.

Key words: leadership, vision, power, importance, influence.

It is important to make the distinction between management and leadership. Warren Bennis, a successful specialist in leadership, denounce that a lot of corporations are very managerized and sublead or unlead truly. Another expert, Grace Hoper said: “We managerised things and leads people.” The contemporary literature of management will confirm us that leadership is the liveliness and encouragement process of the others to work hard to complete important tasks, in the same time it is one of the most popular management’s problem.

To succeed like a leader you have to raise the thrust, dedication and the enthusiast necessary for people to show their talents truly to contribute at the completing plans; the leader must be good in handle all the aspects of communication, interpersonal relationship, motivation, the design of job, work in team and changes.

Great leaders obtain extraordinary things mode in organization from the ardor, the encouragement and the motivation of the other to a certain purpose. Most of the times, the term leadership is associate with the vision. The term was used in generally to describe someone who has a clear sense of the future and the understanding the necessary action to obtain the success. Leading requests the change or the transformation of the vision in reality.

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Leadership with vision request the communication of this vision to everyone who are interested and imply the employed of motivating person to follow the vision in every day of their work. To put it differently Leadership implies two things: to have the vision and to be able capable to transform it in reality.

The five principles of the visionary leadership:
- The provocation of the process. Be an engineer; stimulate and support people who have ideas.
- Be enthusiast. Get excited and animate the others by your personal enthusiasm to share a common vision.
- Help the others to action. Be a team player and support the efforts and the talents of the others.
- Establish the model. Give a substantial and consistent role like model, on the basis of the other could and want an action.
- Celebrate the achievement. Bring the emotion to work and the “union” of hearts and minds.

Leadership and power
The power is the capacity to obtain what we want to do. It is the capacity to make things happened in the way we want. It is recognize that the need for power is essential for the successful executives. This need for power it isn’t a wish to influence and control the other for the good of group or organization like a whole. This positive force of power set up the bases of the effective leadership.

The sources of power of the personal position and power use by manager:
1. The power of position – it is based on things which managers could offers to the others;
   - rewards – if you do what they ask for, then they will give you a reward;
   - punish – if you don’t do what they ask for, they will punish you;
   - legitimacy – because I am your boss, you have to do what I asked for.
2. The power of person – it is based on the modalities in which managers are seen by others.
   a) the expertise – a source of special knowledge and information;
   b) the reference – a person who the other like to identify.
The transformation of power in influence

Managers have to establish a large net of interpersonal contacts and to obtain the implication of important fluxes of information in them. They have to avoid isolation. To obtain power, manager have to take care to the others who are dependents on them and to support them extremely well through the execution of things which add value to the unit work. The power is increase by visibility. Good managers don’t hesitate to make formal presentation, to participate at forces and committee for task; even some follow some committing or special investitions which can put in value the capacity and their talents of leadership.

There are four conditions which determine if the directives or the commands of the leader will be follow and if he really obtain the influence:

1. the other person have to understand the directive or the command;
2. the other person have to feel capable to complete the command;
3. the other person have to believe that the directive or the command is in the best way in the organization inters;
4. the other person have to believe that the directive or the command is compatible with the personal values.

The application of this theory is connected with ethics and the limits of power. When managers make pressures to their subordinates to make questionable things, then appear a lots of dilemmas. Using the acceptance theory of the authority, the ethic problem which we have to put it always is: Where I tog or I will tog the line; at which point I refuse (or I will refuse) to complete the demands? “Can we…will we…when we…say no?” So, with the help of the acceptance theory of the authority it is establish the limit of managerial power.

CONCLUSIONS

In the end, it can be said that the motivations of the employees, an important coordinate of the stimulate function of the leader, is a choice problem to choose the best ways and motivational tools but, specially, a problem of managerial philosophy, of optic of the manager as for the relationship with his employees.

In this sense, the words of C.Francis, the president of the General Foods, are extremely suggestive: “You can buy the time of some person, you
can buy the physical presence of a person in a certain place; you can buy even a certain number of specialized moves by hour or by day; but you can’t buy the enthusiasm of people, the initiative, loyalty, the kindness of their hearts, spirits and souls. You have to obtain these things”.

BIBLIOGRAPHY

This study reveals the importance of melatonin in the control of reproduction in small ruminant research. The hypothalamus' adjustment for the photoperiodic adjustment of the gonadotrops has been modified through selection with the purpose of realizing the optimal time of conception that varies at species where there is a correlation between the body weight, the length of gestation and season, taking into account the natural environment.

**Key words**: sheep, melatonin, photoperiodism

**Introduction**

As far as small ruminants are concerned, the exposure at long or short days induces prematurely the intensification of the reproductive axis. This implies an increase in gonadotropic secretion and also a re-start of the testicular activity, leading to the reproductive conduct that appears in the regular mating season. The passage from short to long days is inhibiting for the reproductive axis (Suttie and col, 1989). The regular alternation between long and short days accelerates the outbreak of the sexual cycle, by outrunning it with more than four cycles.

Long cycles are generated continuously endogenous as circadian rhythm, and in normal conditions the purpose of photoperiodic changes is to induce and maintain the cycles.

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1. Pineal gland and melatonine

The characteristic of the epiphysis regarding the daily secretion rhythm of melatonin is that it mediates the effects of photoperiodism. (Reiter, 1991). The general scheme of melatonin’s release is presented in picture 1.

In mammals, as well as in some other groups of vertebrates, the epiphysis is not directly sensitive to light, the photonic information being transmitted by the retina. Neural release implies cells which are sensitive to the non-visual light within the retina, and passing through the retina-hypothalamus passage it connects to the suprachiasmatic nucleus in the hypothalamus that acts as a dominant generator of circadian rhythm and determines the sympathetic innervation of the pineal gland. The destruction of any of the components from this neural axis interferes with the melatonin’s secretion that makes animals become reluctant to the changes of photoperiodism.

Initially it has been demonstrated that in sheep, the disruption of melatonin’s secretion blocks the photoperiodic adjustment of the seasonal characteristics realized by maintaining the animals in conditions of artificial light with the purpose of accelerating the natural period of the biological rhythm (that is the alternative use of long and short days within a period of 16 weeks in order to initiate the estrum cycle in the 32nd week (Lincoln, 1979). In such conditions, a sheep without a functioning pineal gland, is incapable of adjusting the reproductive rhythm in the long run given the circumstances of light experimental process. However, the animals continue to manifest in the long run modifications in the secretion of the gonadotrophine and prolactine and the gonadal activity, due probably to the intrinsic rhythmicity and/or the effects of other environmental factors that act independently over the pineal gland.

2. The action settings of melatonine in controlling seasoning

In order to elucidate the setting where the melatoniine acts in order to obtain a seasonal response in sheep , this hormone has been locally administered in different regions of the hypothalamus and the pineal gland (Malpaux, 1993). This implied two-sided placingof micro-implants with melatonin contentin possible target spots in animals that have been treated
with the pattern of long days. The prediction was that any treatment set at the place where the endogenous signals of melatonin (in this case for a short period) determines the blocking of the effects for long days. The rams treated with melatonin in mediobasic hypothalamus and in the area pars tuberalis (but not in other areas) has blocked the effect of long day.

Any treatment in the medio-basic hypothalamus has produced a short-day response, has induced the intensification of gonadotrophine secretion, the growth of testicles, the induction of beta endorphine secretion, changes associated in body weight and the decrease in prolactine secretion. Periodic administration of daily melatonin infusion in the medio-basic hypothalamus by using dialysed samples has provoked a short-day response. (Lincoln, 1992)

Similar results have been obtained in sheep where the melatonine has released itself continuously, yet, in ovariectomized animals, the reactivity of LH secretion has not been obvious through the use of estrogen implants and the long-day pattern (Malpaux, 1993). The treatments made in the area pars tuberalis have been efficient only in altering the prolactine secretion (Malpaux, 1995). This proves that cells in pars tuberalis are the expression of a high concentration of melatonin receptors, which have not mediated photoperiodic effects over the gonadotropic secretion and over the hypophysis axis, but have induced effects over the prolactine secretion. This concept has been investigated in details in sheep with hipofizectomized (the disconnection hypothalamus- pituitary- HPD). At HPD sheep, the sanguine concentration of prolactine has changed as response to the photoperiodism and to the melatonin administration similarly as in witness animals where the cycle has persisted (Lincoln, 1994). Prolactine adjustment has changed so that the dopamine couldn’t control the prolactin secretion (Lincoln, 1995). At these animals, the circulatory level of the gonadotrops has permanently been very low, due to the absence of GnRH synthesis of the hypophalamus.

In conclusion, the melatonin acts directly over the pineal gland, as far as the modulation of the prolactine secretion is concerned. As long as in sheep the melatonin receptors are not expressed through lactotroph (Williams, 1997), the effect can be obtained by using the cells that produce melatonin. In pars tuberalis this is sustained by the observations claiming that the cells produce a factor - Tuberalin – that stimulates the prolactine
secretion and that is believed to inhibit the adjustment of melatonin (Morgan, 1996).

The model of the disconnection hypothalamus-pituitary in sheep has been used to analyze the impact of melatonin over the secretion of LH and FSH. This supposes the administration of a pulsatile infusion of GnRH to reactivate the reproductive axis in sheep disconnected hypothalamus-pituitary and maintained in conditions of long and short days. (Lincoln, 1998)

This treatment induces a growth in gonadotropic secretion but does not bring to light any effect on the photoperiodism in these responses, what makes it very clear that the signals of melatonin act directly in the adjustment of the reproductive seasonal cycle. The most highly probable spot to control the reproductive axis is the medio-basic hypothalamus. This process is sustained by micro-implants; the melatonin placed in the medio-basic hypothalamus reactivates the pulsatile secretion of LH at hypothalamus level, a response determined by the release of GnRH produced by the hypothalamus.

The seasonal changes of melatonin secretion are induced through a growth of GnRH’s pulsatile release on the circulatory pituitary way, activated by the gonadotrophines (Rhim, 1993). Melatonin is believed to modulate the release of GnRH, probably due to her action on the neural system dopaminergic and opioinergic from the medio-basic hypothalamus that realizes connections with GnRH neurons (Rasmussen, 1991)

The modality in which signals interact over the generating systems of cicadyal rhythm is still a mystery. This may produce itself separately at hypophysis level for prolactine and at hypothalamus level for gonadotrophines. The different adjustments of these two endocrine systems provide an explanation for the apparent paradox according to which all the photoperiodic mammals possess a similar mechanism essential concerning the prolactine secretion that reaches a climax in summer. In fact, there are various species that present variations regarding the appearance of the gonadotropic secretion and the mating season (with a mating season in long days and short days). The loss of temporal correlation between the gonadotropic and the prolactine is established for a series of species.

Sometimes the mechanisms of the pituitary gland to adjust the prolactine’s photoperiodism has been well kept at some species, that’s why the prolactine is believed to be the summer hormon. The
hypothalamus’ adjustment for the photoperiodic adjustment of the gonadotrops have modified through selection with the purpose of realizing the optimistic time of conception that varies at species where there is a correlation between the body weight, the length of gestation and season, taking into account the natural environment.

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9. Malpaux B. și colab (1995) - The ovine pars tuberalis does not appear to be targeted by melatonin to modulate luteinising hormone secretion but may be important for prolactin release. J. Neuroendocrinol. 7, 199-206.
The objective of the present paper is to establish the influence of the repeated treatments with gonadotropic serum (eCG) over the reproduction in sheep taking into account the way of action and its subsequent effects, the annihilation method and the administration interval after 2, 3 or even 4 treatments. For the sheep Merinos de Palas, the steril sheep have been in a percentage of 30-20% after the first and second treatment, and considering a different flock of sheep, the percentage has been of 1.26% and respectively 65.8%. The treatments with gonadotropic serum modifies the subsequent reproduction of sheep between 30-40% in comparison with the first treatment, and after the second treatment the steril sheep represented 20-65%.

Key words: serum, gonadotrophine, sheep, reproduction.

THE OBJECTIVE OF THE EXPERIMENT

The progres registered within the reproduction of farm animals implies the necessity of introducing during the current reproduction techniques of the hormonal treatments for the induction and synchronising of the estrum and the determination of multiple ovulations.

The accepted function of the programs for synchronizing sheep estrum is to provide an appropriate number of sheep for artificial

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insemination, thus insuring the possibility of some grouped lambing and increasing the rate of gemelarity.

Within the flocks of sheep with intensive reproduction, approximately 50-60% of the females are treated with different kinds of spongies associated with eCG either for the induction and synchronizing of the estrum or with the purpose of artificial insemination.

Other females serve as donors or receptors in MOET program. In such cases, the administration of eCG is done in quantities big enough that are repeated at varied periods of time (34-60 days). The capacity of eCG to induce multiple ovulations has permitted its use at a larger scale in various hormonal treatments of synchronizing the estrus especially to increase the amount of proliferation.

So far there has not been registered effective research concerning the influence of this product over the subsequent reproduction in sheep and goats and there has not been discovered the minimal period of time after which eCG treatments can be repeated in sheep.

From the chemical point of view, eCG is a glicoprotein with a molecule much bigger than the one of gonadotropic hormones that contain a series of amino-acids and carbohydrates. Gonadotropic serum contains both FSH AND LH with a bigger amount of FSH. The fact that eCG is formed of a great quantity of N-acetil confers to the molecule an interval to halve “in vivo” which is much longer than FSH and LH, of almost 48 hours.

The long period in which eCG can be halved contrasts with the halving period of pituitary gonadotropine (FSH), a quality that allows eCG to be administered in only one injection in comparison with the multiple administration required by the pituitary hormones. It is well-known that eCG is formed of one sub-unit α similarly structured in all the cases and one sub-unit β that is responsible for that type of biological activity exercised by the intact hormon.

If eCG units α are responsible both for the activity of FSH and LH, it has to be tied to the sub-units β and provide a complete biological activity.

Preliminary research indicates sometimes that eCG is, structurally speaking, similar to LH and it has been shown that only one change of one amino-acid makes it capable of acting like FSH so that it may be relatively influenced by the activity of FSH within eCG, without altering LH activity.
Once administered at females, eCG stimulates the maturation and growing of ovarian follicles, re-establishing the normal processing of sexual cycles. Administered at males, this stimulates the process of sperm-genesis. The intraovarian action of eCG is very complex.

RESULTS AND DISCUSSIONS

The results of the study are presented in tables 1 and 2. A number of 79 sheep have been treated consecutively between 2001-2003.

It has already been mentioned the fact that the sheep have been treated with progesteron for estrum induction (with Chronogest and Veramix). The way of acting refers to tying the antihormons with the gonadotropic hormonal receptors, a case in which there is no longer a free transporter to act over the target organ. (the ovaries)

The use of synchronizing treatments in sheep for genetic or managerial purposes is frequently used, allowing the fertilization of sheep outside the mating season. Thus it allows the disemination of the genetic process, the control over the experimental programs for progeny testas well as the improvement of the genetic program. On the other hand, the synchronizing is greatly required for the application of artificial inseminations.

The objective of the present paper is to establish the influence of the repeated treatments with gonadotropic serum over the reproduction in sheep and goats taking into account the way of action and its subsequent effects, the annihilation method and the administration interval after 2, 3 or even 4 treatments.

MATERIALS AND METHODS

The study has been completed after analysing the livestock evidences (the register of mating and lambing) on the sheep Merinos de Palas that have been treted in order to induce the estrus between 2001-2003.

At I.C.D.O.C. Palas all the sheep that have been treated successively twice or three times have been registered to study. The treatments have been complex, as the sheep have been treated for the induction of multiple ovulations or for the intrauterine inseminations with the laparoscope.
The results of the study have been appreciated through the fecundity analysis after the lambing with the insemanitation in induced estrum (freshening at doners, embryos’ transfert at receptors, intrauterinesponges) and the ovulation with gonadotropic hypophysis and extrahypophysis (eCG in quantities from 500-1500 UI or FSH 15-20 mg).

After the first treatment 64% of the sheep have given birth in estrum induced by hormones (51/79) and 21,5% (17/79) for the insemination in repeated cycles. The same sheep treated for the second time have given birth in estrum induced by hormones only 20,2% (16/79) and 65,8% (52/79) didn’t give birth the followinf year, the rest of sheeg giving normal births, after the insemination in estral cycles, (table 1).

Table 1. Influence of hormonal tratments upon reproduction index in Merinos Palas ewes (I.C.D.O.C Palas, 2001-2003)

<table>
<thead>
<tr>
<th>Specification</th>
<th>First treatment</th>
<th>2-th treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female treated (n)</td>
<td>79</td>
<td>79</td>
</tr>
<tr>
<td>Female lambed after natural mated or artificial insemination in induce estrus (n) (%)</td>
<td>51 64</td>
<td>16 20,2</td>
</tr>
<tr>
<td>Female lambed after 3 th estral cycle (n) (%)</td>
<td>17 21,5</td>
<td>11 13,9</td>
</tr>
<tr>
<td>Dray female (n) (%)</td>
<td>1 1,26</td>
<td>52 65,8</td>
</tr>
</tbody>
</table>

Table 2. Influence of hormonal tratments upon reproduction index in Merinos Palas ewes (I.C.D.O.C Palas, 2001-2003)

<table>
<thead>
<tr>
<th>Specification</th>
<th>First treatment</th>
<th>2-th treatment</th>
<th>3-th treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female treated (n)</td>
<td>20</td>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>Lot 1 (n) (%)</td>
<td>13 65</td>
<td>11 55</td>
<td>11 5</td>
</tr>
<tr>
<td>Lot 2 (n) (%)</td>
<td>1 5</td>
<td>5 25</td>
<td>9 45</td>
</tr>
</tbody>
</table>
| Lot 1. Female lambed after natural mated or artificial insemination in induce estrus Lot 2. Female lambed after 3 th estral cycle, Lot 3 Femele fără fătare
Another flock of sheep (n=20) is treated three times after every treatment, the fecundity in the estrum induced bt hormons has been of 65% after the first tretmant, 555 after the second and the third treatment.

In this situation the fecundity after the second and the third treatment have dropped only by 18%.

The results obtained confirm the research made in the recent years that have led to a decrease of the fecundity after repeated treatments. A series of researchers have sustained that the presence of antibodies anti-eCG even 6 months after the treatments. The problem in question is to establish the necessary period to make these antibodies disappear.

**CONCLUSIONS**

The research made concerning the influence of repeated gonadotropic serum treatments (eCG) over the subsequent reproduction in sheep has led to the following conclusions:

1. For the sheep Merinos de Palas, the steril sheep habe been in a percentage of 30-20% after the first and second treatment, and considering a different flock of sheep, the percentage has been of 1,26% and respectively 65,8%.

2. The treatments with gonadotropic serum modifies the subsequent reproduction of sheep between 30-40% in comparison with the first treatment, and after the second treatment the steril sheep represented 20-65%.

3. The research is vital for the application of biotechnical methods in the reproduction of sheep and goats, motivation for whose sake the research must be continued in order to establish all the factors that contribute to the increase in mortality and which is the minimal interval that allows the application of two successive treatments, when practically in the blood of the treated femeles there are no longer anti-eCG antibodies.
In this paper we try to discuss the dairy sheep and goat industry in Central and Eastern Europe. Last 15 years in Central and Eastern Europe countries many changes produced because of the transformation processes in sheep and goat production.

**Key words**: sheep, goat, milk

**INTRODUCTION**

Before the 1989 year, the sheep production has been focused in wool production and secondly for meat and skin production. The goat has been breeding for milk, skin, fiber and meat. After 1990 the sheep production was oriented for meat and milk and in goat especially for milk.

The political changes in Eastern European Country determinate a great migration of sheep and goats from state propriety toward private propriety. This fact produced great changes in the number of sheep and goat, in the most of the Central and Eastern European Countries. The total number of small ruminants decreased very much, because of the less government importance.

In case of goats, there breeding importance was significantly higher in Balkan countries region, where the government interesting on goat production was totally gave up. More and more this situation has produced the reduction of sheep production profitability caused the change of the sheep and goat breed structure.

In present the next transformation period in the sheep and goat sector will be expected in these countries, because of their accession to EU in 2004 and 2007.

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The economic transition in Central and Eastern European Countries brought about significant changes.

**The sheep and goat sector in Central and Eastern Europe**

The number of sheep and goat is shown in table 1-4. There is some changes in the number of sheep and goat very varied between the countries.

**Table 1. Number of sheep in the countries of Central and Eastern Europe (x 1000 heads- FAO-2004)**

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Albania</td>
<td>1646.4</td>
<td>2480.0</td>
<td>-</td>
<td>1939.0</td>
<td>1800.0</td>
</tr>
<tr>
<td>2</td>
<td>Bosnia &amp; Herzegovina</td>
<td>971</td>
<td>520.0</td>
<td>-</td>
<td>661.6</td>
<td>670.0</td>
</tr>
<tr>
<td>3</td>
<td>Bulgaria</td>
<td>8130.3</td>
<td>3397.6</td>
<td>3019.6</td>
<td>2548.9</td>
<td>1728.4</td>
</tr>
<tr>
<td>4</td>
<td>Croatia</td>
<td>-</td>
<td>452.9</td>
<td>-</td>
<td>528.7</td>
<td>586.6</td>
</tr>
<tr>
<td>5</td>
<td>Czech Republic</td>
<td>-</td>
<td>165.3</td>
<td>-</td>
<td>84.1</td>
<td>103.1</td>
</tr>
<tr>
<td>6</td>
<td>Hungary</td>
<td>2069.2</td>
<td>947.0</td>
<td>-</td>
<td>954.0</td>
<td>1103.0</td>
</tr>
<tr>
<td>7</td>
<td>Macedonia</td>
<td>-</td>
<td>2466.1</td>
<td>-</td>
<td>1289.0</td>
<td>1200.0</td>
</tr>
<tr>
<td>8</td>
<td>Poland</td>
<td>4158.5</td>
<td>713.2</td>
<td>-</td>
<td>361.6</td>
<td>337.8</td>
</tr>
<tr>
<td>9</td>
<td>Romania</td>
<td>15434.8</td>
<td>10896.6</td>
<td>9547.0</td>
<td>8121.0</td>
<td>7446.9</td>
</tr>
<tr>
<td>10</td>
<td>Slovakia</td>
<td>-</td>
<td>391.1</td>
<td>-</td>
<td>337.1</td>
<td>325.5</td>
</tr>
<tr>
<td>11</td>
<td>Slovenia</td>
<td>-</td>
<td>39.1</td>
<td>-</td>
<td>72.5</td>
<td>107.4</td>
</tr>
</tbody>
</table>

Estonia, Latvia and Lithuania: sheep<100,0 ; goats <30,0

Important decrease in number of sheep were observed in Bulgaria (-78.25%), Romania (-48%), Poland (-81%), Hungary (-53, 3%), Macedonia (-50%), Slovakia (-22%) and were stable or even are increased in Albania (+9.3%), Bosnia-Herzegovina (+28%) and Croatia .

The stabilizing sheep population in Central and Eastern Europe is produce by changes in transition period, with difficulties in economic situation and the change of direction in exploitation of ewes, due to the loss of wool importance, increasing the interests for meat and milk exploitation and one more reason being missing of a proper market for sheep and goats products. Despite of this inconveniences the biggest number of sheep is in Romania, Bulgaria, Albania, Macedonia and Hungary.
Table 2. Number of goats in the countries of Central and Eastern Europe (x 1000 heads - FAO-2004)

<table>
<thead>
<tr>
<th></th>
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<td>1</td>
<td>Albania</td>
<td>1,144</td>
<td>1,650</td>
<td>-</td>
<td>1,106</td>
<td>1,025</td>
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<tr>
<td>2</td>
<td>Bosnia &amp; Herzegovina</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
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<tr>
<td>3</td>
<td>Bulgaria</td>
<td>432,9</td>
<td>795,4</td>
<td>848,7</td>
<td>1046,3</td>
<td>900</td>
</tr>
<tr>
<td>4</td>
<td>Croatia</td>
<td>-</td>
<td>107,3</td>
<td>-</td>
<td>79,4</td>
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<tr>
<td>5</td>
<td>Czech Republic</td>
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<td>45,0</td>
<td>-</td>
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<td>12,8</td>
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<td>Hungary</td>
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<td>52,3</td>
<td>-</td>
<td>189,0</td>
<td>140,0</td>
</tr>
<tr>
<td>7</td>
<td>Macedonia</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>8</td>
<td>Poland</td>
<td>-</td>
<td>177,0**</td>
<td>-</td>
<td>172,0**</td>
<td>-</td>
</tr>
<tr>
<td>9</td>
<td>Romania</td>
<td>1017,3</td>
<td>745,1</td>
<td>609,0</td>
<td>558,0</td>
<td>678,0</td>
</tr>
<tr>
<td>10</td>
<td>Slovakia</td>
<td>-</td>
<td>25,1</td>
<td>-</td>
<td>50,9</td>
<td>39,2</td>
</tr>
<tr>
<td>11</td>
<td>Slovenia</td>
<td>-</td>
<td>10,7</td>
<td>-</td>
<td>14,6</td>
<td>22,0</td>
</tr>
</tbody>
</table>

* - 1996; ** 2001; Estonia, Latvia and Lithuania goat < 30,000

The same evolution in the number of goats is visible in 7 countries from Central and Eastern Europe (Albania, Romania, Bulgaria, Poland, Hungary, Croatia and Slovakia). Except, Bulgaria, Hungary and Poland where increase of goat, in the rest of the countries goat population were decreased with 9-33% (table 2). Relative stable level was observed in Estonia, Latvia and Slovenia the number of goats is about 30,000-15,000 heads.

The farm structure. Today the small size of the herds is main characteristic of sheep farming. The people keep the sheep and goat to satisfy their family requirement. Only a few numbers of farmers keep large herds over 100 ewes and 50 goats. (tables 3,4,5,6). For example in Romania the small herds represent 86% for sheep and 29,3% for goat, and in Albania is 42,9% and 35,9% for sheep and goats. The big farmer represent only 0,1-1,18 % for sheep and 0,1-3,9 % for goats. Regarding the farm structure we observe in Romania and Albania that the little farms where the number of sheep and goat is ranged 1-10 animals. In Romania the percent of this little exploitation is 64,69% for sheep and 53,7% for goats and in Albania there is 36% for goats and respectively 42,9 % for sheep (table 6).
Table 3. The farms structure based on the number of sheep in Romania (2003)

<table>
<thead>
<tr>
<th>By number of sheep</th>
<th>Exploitation</th>
<th>Heads</th>
<th>No./capita / exploitation</th>
</tr>
</thead>
<tbody>
<tr>
<td>(n)</td>
<td>%</td>
<td>(x 1000 heads)</td>
<td>%</td>
</tr>
<tr>
<td>&lt; 5</td>
<td>462002</td>
<td>64.69</td>
<td>1604.7</td>
</tr>
<tr>
<td>6-10</td>
<td>152459</td>
<td>21.35</td>
<td>1117.2</td>
</tr>
<tr>
<td>11-20</td>
<td>65186</td>
<td>9.13</td>
<td>889.9</td>
</tr>
<tr>
<td>21-50</td>
<td>19502</td>
<td>2.26</td>
<td>564.5</td>
</tr>
<tr>
<td>51-100</td>
<td>8456</td>
<td>1.18</td>
<td>576.0</td>
</tr>
<tr>
<td>101-200</td>
<td>4185</td>
<td>0.83</td>
<td>574.6</td>
</tr>
<tr>
<td>201-500</td>
<td>1943</td>
<td>0.50</td>
<td>556.8</td>
</tr>
<tr>
<td>&gt; 500</td>
<td>394</td>
<td>0.06</td>
<td>290.3</td>
</tr>
<tr>
<td>TOTAL</td>
<td>714127</td>
<td>100.00</td>
<td>6174</td>
</tr>
</tbody>
</table>

Table 4. Goat farm structure - Romania (2003)

<table>
<thead>
<tr>
<th>By number of goats</th>
<th>Does</th>
<th>%</th>
<th>Exploitations</th>
</tr>
</thead>
<tbody>
<tr>
<td>With 1-10</td>
<td>147,086</td>
<td>29.30</td>
<td>53,770</td>
</tr>
<tr>
<td>11-50</td>
<td>172,990</td>
<td>33.14</td>
<td>8144</td>
</tr>
<tr>
<td>More then 50</td>
<td>196,063</td>
<td>37.56</td>
<td>2520</td>
</tr>
<tr>
<td>Total</td>
<td>502,000</td>
<td>100%</td>
<td>64,434</td>
</tr>
</tbody>
</table>

Table 5. The farm structure based on the number of animals kept in Albania (2003)

<table>
<thead>
<tr>
<th>By number of goats</th>
<th>No. of farms X1000</th>
<th>%</th>
<th>By number of Sheep</th>
<th>No. of farms X1000</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>No goats</td>
<td>208.8</td>
<td>49.5</td>
<td>No sheep</td>
<td>167.0</td>
<td>39.6</td>
</tr>
<tr>
<td>With 1-10 goats</td>
<td>151.4</td>
<td>35.9</td>
<td>With 1-10 goats</td>
<td>180.9</td>
<td>42.9</td>
</tr>
<tr>
<td>11-30</td>
<td>41.3</td>
<td>9.8</td>
<td>11-3</td>
<td>8.1</td>
<td>11.4</td>
</tr>
<tr>
<td>51-100</td>
<td>11.8</td>
<td>2.8</td>
<td>51-100</td>
<td>15.2</td>
<td>3.6</td>
</tr>
<tr>
<td>101-200</td>
<td>7.2</td>
<td>1.7</td>
<td>101-200</td>
<td>8.4</td>
<td>2.0</td>
</tr>
<tr>
<td>More than 201</td>
<td>0.8</td>
<td>0.2</td>
<td>More than 201</td>
<td>0.4</td>
<td>0.1</td>
</tr>
<tr>
<td>Total</td>
<td>421.8</td>
<td>100%</td>
<td>Total</td>
<td>421.8</td>
<td>100%</td>
</tr>
</tbody>
</table>

Source: Kume, Kristaq-Livestock Research Institute, Tirana (2003)

In Romania the farm with more than 100 sheep account for about 1.18% and the farm with more 50 does represent 3.91%. In Albania sheep farms account for about 3.6% and 2.8% for goats. In all Central and Eastern Europe Countries the small ruminant are kept on traditional methods using the extensive system and natural pastures. The products of small ruminant
serve to fulfill the family needs. Theirs marketing is limited and difficult due to the lack of the required infrastructure. The milk collection and processing is in its first steps. In the last time in Romania, the big farmers started, so they represent 0,5-0,8% in ewes and 3,9% in goats and in Albania represent 0,1% in sheep and 2,8 % in goats (table 5,6,7). From the commercial point of view all farms with more than 100 animals can solve the problem of milk processing specialization and the intensification of the production.

The breed structure. In all Central and Eastern European Countries local breeds dominate the sheep and goat population. Low yields for milk and meat production are characteristically for these types. Such a case is recommended an strong strategy for a genetically and improving program in sheep and goat populations, looking forward to increase milk and meat productions and finally, the profit obtained. Some of the mentioned above countries, already have established improvement policy, using high genetic level for their local populations. (Hungary, Poland, Albania, Macedonia) and local goat breeds are improved with specialized goat breeds as Alpine or Saanen to raise milk production (Hungary, Poland, Romania, Albania, Bosnia-Herzegovina) or meat production with Boer breed (Hungary). For example in Romania, using Saanen bucks on the local does, milk production become double (table 8).

Table 6. Structure of breed and milk yield in Romania

<table>
<thead>
<tr>
<th>Name of Breeds</th>
<th>Type</th>
<th>Population</th>
<th>Average milk yield/lactation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carpatian breed</td>
<td>Local variety</td>
<td>455750</td>
<td>120-350</td>
</tr>
<tr>
<td>Saanen Carpatian breed</td>
<td></td>
<td>150</td>
<td>220-480</td>
</tr>
<tr>
<td>Angora pure breed and</td>
<td></td>
<td>100</td>
<td>-</td>
</tr>
<tr>
<td>metise</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White Banat</td>
<td></td>
<td>50000</td>
<td>150-300</td>
</tr>
</tbody>
</table>

The dairy sheep and goat industry.
The leading milk producers from CEEC are presented in table 7 and 8. The highest sheep milk production is observed in Romania, Albania, Macedonia as well as in Hungary. Certainly and Bulgaria produced an important quantity of sheep milk but it is not registered in data base of FAO.
Table 7. Sheep milk production in CEEC (x 1000 tonnes) (FAO,2004)

<table>
<thead>
<tr>
<th>Nr.</th>
<th>Country</th>
<th>1990 l.milk/ewes</th>
<th>2003 l.milk/ewes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Albania</td>
<td>44</td>
<td>69**</td>
</tr>
<tr>
<td>2</td>
<td>Bulgaria</td>
<td>272</td>
<td>26</td>
</tr>
<tr>
<td>3</td>
<td>Croatia</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>4</td>
<td>Hungary</td>
<td>49</td>
<td>30</td>
</tr>
<tr>
<td>5</td>
<td>Macedonia</td>
<td>-</td>
<td>45</td>
</tr>
<tr>
<td>6</td>
<td>Romania</td>
<td>405</td>
<td>358,4**</td>
</tr>
<tr>
<td>7</td>
<td>Slovakia</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

-data inaccessible; * source : Heifer Project-Albania; **source: Agriculture Ministry of Romania.

Table 8. Goats milk production in CEEC (x 1000 tones)

<table>
<thead>
<tr>
<th>Nr.</th>
<th>Country</th>
<th>1990 l milk/does</th>
<th>2003 l milk/does</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Albania</td>
<td>52</td>
<td>63,2*</td>
</tr>
<tr>
<td>2</td>
<td>Bulgaria</td>
<td>64</td>
<td>140</td>
</tr>
<tr>
<td>3</td>
<td>Hungary</td>
<td>3</td>
<td>190</td>
</tr>
<tr>
<td>4</td>
<td>Poland</td>
<td>21</td>
<td>10</td>
</tr>
<tr>
<td>5</td>
<td>Romania</td>
<td>99470</td>
<td>73,36**</td>
</tr>
<tr>
<td>6</td>
<td>Slovakia</td>
<td>-</td>
<td>13</td>
</tr>
</tbody>
</table>

*Source: Heifer Project-Albania; ** Agriculture Ministry- of Romania.

The milk quantity/ewes is variable from the countries, from 13 l/ewes (Croatia) to 48 l/ewes (Romania) and the milk quantity / does is 61 liters to 220 liters per does.

Table 9. The dairy sheep and goat industry in CEEC (2004)

<table>
<thead>
<tr>
<th>Country</th>
<th>Production (t)</th>
<th>Total production of cheeses (t)</th>
<th>Marketed and processed milk (t)</th>
<th>Milk price (USD/l)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Ewe milk</td>
<td>Goat milk</td>
<td>Ewe milk</td>
<td>Goat milk</td>
</tr>
<tr>
<td>Albania</td>
<td>69,034</td>
<td>63,208</td>
<td>2584,0</td>
<td>41,0</td>
</tr>
<tr>
<td>Romania</td>
<td>70519,8</td>
<td>73860,7</td>
<td>14458,0</td>
<td>72190,2</td>
</tr>
<tr>
<td>Bulgaria*</td>
<td>110300</td>
<td>139000</td>
<td>5700,0</td>
<td>28,500</td>
</tr>
</tbody>
</table>

*1996,Dimov.
In general there is a decreasing tendency in production of consumer ewe milk in Central and Baltic Countries and an increasing tendency in Balkans Countries like Romania, Bulgaria, Albania and Macedonia. The goat milk production is very important in CEEC since 1990 in all countries, especially Bulgaria, Romania, Albania, Poland, and Hungary. Goat milk is an attractive product for EU’s markets, so a part of the countries give a very great attention to this sector (table 9,10,11).

Unfortunately it was a bad practice in a part of CEEC to collect the data from sheep and goat milk, so is very difficult to know the production separately for each specie. The number of dairy sheep and goat in all countries are not registered. We can see this only in Albania where the dairies collecting are 166 (both for sheep and goat) and Romania where the dairies collecting are 14937 (sheep) and 11000 (goat). The total milk processed represent only 25% - 30% from total quantity of sheep and goat milk.

Unfortunately there is no data for the other countries from CEEC.

CONCLUSION

The present report was very difficult to do because many indicators for sheep and goat production are not registered.

-The reduction of number of sheep and goats in ex-communist country has been determinate as following: the disappearance of the farmer cooperative sector, missing of the main markets, low profits in the industry because of bad management and marketing of dairy farms and non infrastructure for processing and proper valorification of sheep and goat products.

-Last 7 years the number of small ruminants started to increase, so actually they represent about 60-70% comparison with figures of year 1990.

-Low yields in profit obtained are caused as well because of trading and export of too much row material.
- We appreciate if the national record on sheep and goat would be registered separately.
- Along with the projects of NGOs the government must implementing programs which to reactivate the milk collection and processing, especially in the rural zones in CEEC.

**BIBLIOGRAPHY**


THE ECONOMIC EFFICIENCY AFTER THE APPLICATION OF BIOSTIMULANTS ON ALFALFA CULTURE

EFICIENȚA ECONOMICĂ A APLICĂRII BIOSTIMULATORILOR LA CULTURA DE LUCERNĂ

I. PEȚ*, N. DRAGOMIR*, ELENA PEȚ**, T. BERAR***, CARMEN DRAGOMIR*, S. GAȘPAR*, LAURA MIHĂESCU*

The application of growth biostimulants in the case of an alfalfa crop produced an increase of hay production per ha, inclusively to an increase of the benefit obtained per unit of surface. The average benefit per unit of product recorded values between 28,48-38,02 euro/t, depending on what biostimulant had been applied. The highest values were recorded in the experimental variants in which we had applied Mega grow (38,04 euro/t), Agrostemin (34,15 euro/t), and Stimupro (31,51 euro/t). In the other experimental variants with application of biostimulants, the average benefit per unit of product was lower than that recorded for control variant (30,57 euro/t). The average benefit rate for the three experimental years varies between 57,52-95,22%, depending on the experimental variant. The highest benefit rate was recorded in the variant with application of Mega grow – 95,22%.

Key words: economic efficiency, biostimulants, alfalfa

INTRODUCTION

In each branch of the material production, it is essentially necessary to watch the economic effects of the applied technologies. Not only in the direct productive activity, but also in scientific research, in designing and in other activity fields, the final objective is represented by the achievement of some immediate or long-term economic effects.

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The introduction and the generalization in production of the newest technologies of forage production must rely on calculations of economic efficiency. The aim of such calculations is to offer the possibility to each producer to choose the optimal technological variant, with great productions per unit of surface, of high quality and low costs.

MATERIAL AND METHODS

The indicators used in order to estimate the production economic efficiency are:
- benefit per unit of surface (euro/ha);
- benefit per unit of product (euro/t);
- benefit rate (%); [101; 152]

As a rule, there is not always a direct correlation between the level of the obtained productions and the dimension of the economic indices within the classic intensive technologies of cultivation, because the economic efficiency is much influenced by the expense value.

Expenses per unit of surface for the variants with biostimulant application have values that vary depending on the cost of each biostimulant and on the number of biostimulant applications. The cost of the used biostimulants was: Green fuse 4,75 euro/ha, Stimupro 19,2 euro/ha, Agrostemin 8,75 euro/ha, Sea start euro/ha, Super plant 8,82 euro/ha, Bionat 3,5 euro/ha, Mega grow 3,05 euro/ha, for each yield.

The average sale price for vegetable hay was 0,078 euro/kg.

In the case of the calculations of economic efficiency, the currency was 1 euro = 38000 lei.

RESULTS AND DISCUSSION

The application of growth biostimulants in the case of an alfalfa crop produced an increase of hay production per ha, inclusively to an increase of the benefit obtained per unit of surface.

The results of our researches concerning the economic effects recorded after the application of biostimulants in 2002 are presented in Table 1.

The application of biostimulants at alfalfa in 2002 resulted in an increase of the benefit per unit of surface with up to 74,88%, depending on
what biostimulant had been applied. The benefit per unit of product obtained after the biostimulant application was between 28,01-36,78 euro/t. The highest benefit per unit of product was recorded in the case of the variant with application of Mega grow (36,78 euro/t), variant in which we also obtained the highest benefit rate (89,25%).

In 2003, after we had made the calculations of economic efficiency, the benefit recorded per unit of surface varied between 153,42-337,20 euro/ha, depending on the biostimulant used (Table 2). Taking into account the results presented, we may note that for some experimental variants (Super plant, Bionat, Sea start), in 2003, the benefit obtained per unit of surface was lower than that recorded for control variant.

Table 1
The economic efficiency at alfalfa in the first year of production (2002)

<table>
<thead>
<tr>
<th>Specification</th>
<th>Expenses (euro/ha)</th>
<th>Hay average production (t/ha)</th>
<th>Income (euro/ha)</th>
<th>Benefit per surface unit (euro/ha)</th>
<th>Benefit per product unit (euro/t)</th>
<th>Benefit rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control</td>
<td>373,6</td>
<td>7,50</td>
<td>585</td>
<td>211,40</td>
<td>28,18</td>
<td>56,58</td>
</tr>
<tr>
<td>Green fuse</td>
<td>418,4</td>
<td>8,72</td>
<td>680,16</td>
<td>261,76</td>
<td>30,01</td>
<td>52,56</td>
</tr>
<tr>
<td>Stimupro</td>
<td>462,7</td>
<td>9,71</td>
<td>757,38</td>
<td>294,68</td>
<td>30,34</td>
<td>63,68</td>
</tr>
<tr>
<td>Agrostemin</td>
<td>431,3</td>
<td>9,75</td>
<td>760,50</td>
<td>329,20</td>
<td>33,76</td>
<td>76,32</td>
</tr>
<tr>
<td>Sea start</td>
<td>453,1</td>
<td>9,35</td>
<td>729,30</td>
<td>276,20</td>
<td>29,54</td>
<td>60,95</td>
</tr>
<tr>
<td>Super plant</td>
<td>426,3</td>
<td>8,53</td>
<td>665,34</td>
<td>238,98</td>
<td>28,01</td>
<td>56,05</td>
</tr>
<tr>
<td>Bionat</td>
<td>415,6</td>
<td>8,88</td>
<td>692,64</td>
<td>277,04</td>
<td>31,19</td>
<td>66,66</td>
</tr>
<tr>
<td>Mega grow</td>
<td>414,2</td>
<td>10,05</td>
<td>783,90</td>
<td>369,70</td>
<td>36,78</td>
<td>89,25</td>
</tr>
</tbody>
</table>

Table 2
The economic efficiency at alfalfa in the second year of production (2003)

<table>
<thead>
<tr>
<th>Specification</th>
<th>Expenses (euro/ha)</th>
<th>Hay average production (t/ha)</th>
<th>Income (euro/ha)</th>
<th>Benefit per surface unit (euro/ha)</th>
<th>Benefit per product unit (euro/t)</th>
<th>Benefit rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control</td>
<td>431,40</td>
<td>8,24</td>
<td>642,72</td>
<td>211,32</td>
<td>25,64</td>
<td>48,98</td>
</tr>
<tr>
<td>Green fuse</td>
<td>492,59</td>
<td>9,29</td>
<td>724,62</td>
<td>232,03</td>
<td>24,97</td>
<td>47,10</td>
</tr>
<tr>
<td>Stimupro</td>
<td>550,30</td>
<td>10,37</td>
<td>808,86</td>
<td>258,56</td>
<td>24,93</td>
<td>46,98</td>
</tr>
</tbody>
</table>
From the point of view of the benefit obtained per unit of product, we can observe that the highest values were recorded in the experimental variants in which we had applied Agrostemin (27,09 euro/t), and Mega grow (31,96 euro/t).

In the same variants we obtained the highest benefit rate 53,23%, respectively 69,42%, and in the other experimental variants the benefit per unit of product and the benefit rate had values lower than those recorded for control variant (25,64 euro/t, respectively 48,98%).

The results of the calculations of economic efficiency made for 2004 proved that after the application with biostimulants the benefit per unit of surface may reach 613,32 euro/ha, depending on what product is used (Table 3).

In the experimental variants, the benefit obtained was between 374,86-613,32 euro/ha. The variant in which we had applied Green fuse had the lowest benefit per unit of surface, lower with 0,26 euro/ha than for control. In the other experimental variants, the benefit recorded per unit of surface was higher than that for control. As regarding the benefit per unit of product and the benefit rate, the highest values were caused in variants with application of Mega grow (43,52 euro/t, respectively 126,27%), Agrostemin (39,73 euro/t, respectively 103,85%), and Stimupro (37,41 euro/t, respectively 92,20%).

In the other variants with application of biostimulants, the benefit per unit of product and also the benefit rate were lower than those recorded for control (36,27 euro/t, respectively 86,95%).

The calculation of the average economic efficiency for the whole experimental period (2002-2004) proves the efficiency of the application of growth biostimulants on alfalfa cultivars. The highest average benefit per unit of surface was recorded for the variant in which we had applied Mega grow (439,82 euro/ha), being with 65,53% higher than that recorded for control variant. In all other experimental variants with application of
biostimulants, the average benefit per unit of surface was higher with 4,20-41,52% than that recorded for control variant (Table 4).

Table 3

The economic efficiency at alfalfa in the third year of production (2004)

<table>
<thead>
<tr>
<th>Specification</th>
<th>Expenses (euro/ha)</th>
<th>Hay average production (t/ha)</th>
<th>Income (euro/ha)</th>
<th>Benefit per surface unit (euro/ha)</th>
<th>Benefit per product unit (euro/t)</th>
<th>Benefit rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control</td>
<td>431,40</td>
<td>10,34</td>
<td>806,52</td>
<td>375,12</td>
<td>36,27</td>
<td>86,95</td>
</tr>
<tr>
<td>Green fuse</td>
<td>492,50</td>
<td>11,12</td>
<td>867,36</td>
<td>374,86</td>
<td>33,71</td>
<td>76,11</td>
</tr>
<tr>
<td>Stimupro</td>
<td>550,30</td>
<td>13,56</td>
<td>1057,68</td>
<td>507,38</td>
<td>37,41</td>
<td>92,20</td>
</tr>
<tr>
<td>Agrostemin</td>
<td>508,50</td>
<td>13,29</td>
<td>1036,62</td>
<td>528,12</td>
<td>39,73</td>
<td>103,85</td>
</tr>
<tr>
<td>Sea start</td>
<td>537,50</td>
<td>12,59</td>
<td>982,02</td>
<td>444,52</td>
<td>35,30</td>
<td>82,70</td>
</tr>
<tr>
<td>Super plant</td>
<td>508,80</td>
<td>12,14</td>
<td>946,92</td>
<td>438,12</td>
<td>36,08</td>
<td>86,10</td>
</tr>
<tr>
<td>Bionat</td>
<td>487,50</td>
<td>11,37</td>
<td>886,86</td>
<td>399,36</td>
<td>35,12</td>
<td>81,92</td>
</tr>
<tr>
<td>Mega grow</td>
<td>485,70</td>
<td>14,09</td>
<td>1099,02</td>
<td>613,32</td>
<td>43,52</td>
<td>126,27</td>
</tr>
</tbody>
</table>

Table 4

The average economic efficiency at alfalfa in the period between 2002-2004

<table>
<thead>
<tr>
<th>Specification</th>
<th>Expenses (euro/ha)</th>
<th>Hay average production (t/ha)</th>
<th>Income (euro/ha)</th>
<th>Benefit per surface unit (euro/ha)</th>
<th>Benefit per product unit (euro/t)</th>
<th>Benefit rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control</td>
<td>412,13</td>
<td>8,69</td>
<td>677,82</td>
<td>265,69</td>
<td>30,57</td>
<td>64,46</td>
</tr>
<tr>
<td>Green fuse</td>
<td>467,93</td>
<td>9,71</td>
<td>757,38</td>
<td>289,45</td>
<td>29,80</td>
<td>61,85</td>
</tr>
<tr>
<td>Stimupro</td>
<td>521,10</td>
<td>11,21</td>
<td>874,38</td>
<td>353,28</td>
<td>31,51</td>
<td>67,79</td>
</tr>
<tr>
<td>Agrostemin</td>
<td>482,76</td>
<td>11,01</td>
<td>858,78</td>
<td>376,02</td>
<td>34,15</td>
<td>77,88</td>
</tr>
<tr>
<td>Sea start</td>
<td>509,36</td>
<td>10,50</td>
<td>819,00</td>
<td>309,64</td>
<td>29,48</td>
<td>60,79</td>
</tr>
<tr>
<td>Super plant</td>
<td>481,30</td>
<td>9,72</td>
<td>758,16</td>
<td>276,86</td>
<td>28,48</td>
<td>57,52</td>
</tr>
<tr>
<td>Bionat</td>
<td>463,53</td>
<td>9,68</td>
<td>755,04</td>
<td>291,51</td>
<td>30,11</td>
<td>62,88</td>
</tr>
<tr>
<td>Mega grow</td>
<td>461,86</td>
<td>11,56</td>
<td>901,68</td>
<td>439,82</td>
<td>38,04</td>
<td>95,22</td>
</tr>
</tbody>
</table>
CONCLUSION

The average benefit per unit of product recorded values between 28.48-38.02 euro/t, depending on what biostimulant had been applied.

The highest values were recorded in the experimental variants in which we had applied Mega grow (38.04 euro/t), Agrostemin (34.15 euro/t), and Stimupro (31.51 euro/t). In the other experimental variants with application of biostimulants, the average benefit per unit of product was lower than that recorded for control variant (30.57 euro/t).

The average benefit rate for the three experimental years varies between 57.52-95.22%, depending on the experimental variant. The highest benefit rate was recorded in the variant with application of Mega grow – 95.22%.

BIBLIOGRAPHY

The application of growth biostimulants in the case of an orchardgrass crop produced an increase of hay production per ha, inclusively to an increase of the benefit obtained per unit of surface. The average economic efficiency for the period between 2002-2004 of the experiences carried out on orchardgrass demonstrated that the highest average benefit per unit of surface can be obtained in the experimental variants in which we apply Bionat (264.60 euro/ha), Stimupro (245.65 euro/ha), and Agrostemin (235.35 euro/ha). In the other experimental variants with application of biostimulants, the average benefit per unit of surface was lower than that recorded in the control variant.

**Key words:** economic efficiency, orchardgrass, biostimulants

**INTRODUCTION**

In each branch of the material production, it is essentially necessary to watch the economic effects of the applied technologies. Not only in the direct productive activity, but also in scientific research, in designing and in other activity fields, the final objective is represented by the achievement of some immediate or long-term economic effects.

The introduction and the generalization in production of the newest technologies of forage production must rely on calculations of economic
efficiency. The aim of such calculations is to offer the possibility to each producer to choose the optimal technological variant, with great productions per unit of surface, of high quality and low costs.

MATERIAL AND METHODS

The indicators used in order to estimate the production economic efficiency are:
- benefit per unit of surface (euro/ha);
- benefit per unit of product (euro/t);
- benefit rate (%); [101; 152]

As a rule, there is not always a direct correlation between the level of the obtained productions and the dimension of the economic indices within the classic intensive technologies of cultivation, because the economic efficiency is much influenced by the expense value.

Expenses per unit of surface for the variants with biostimulant application have values that vary depending on the cost of each biostimulant and on the number of biostimulant applications. The cost of the used biostimulants was: Green fuse 4,75 euro/ha, Stimupro 19,2 euro/ha, Agrostemin 8,75 euro/ha, Sea start euro/ha, Super plant 8,82 euro/ha, Bionat 3,5 euro/ha, Mega grow 3,05 euro/ha, for each yield.

The average sale price for gramineae hay it was 0,065 euro/kg.

In the case of the calculations of economic efficiency, the currency was 1 euro = 38000 lei.

RESULTS AND DISCUSSION

The calculation of the economic efficiency concerning orchardgrass crop in 2002 made evident the influence of some different biostimulants upon the increase of forage biomass, and also upon the growing efficacy of the cultivation technology. The application of growth biostimulants determined an increase of benefit per surface unit with up o 46,88%. The highest increases of income per surface unit were recorded in the cases of the experimental variants, in which the following biostimulants had been applied: Bionat (211,95 euro/ha), Stimupro (177,98 euro/ha), and Agrostemin (155,40 euro/ha). In the other variants with biostimulant application, the benefit obtained per surface unit was lower than that recorded for control variant (144,30 euro/ha). (Table 1)
The benefit per unit of product obtained in the experimental variants varied between 9.53-20.32 euro/t. The highest level was recorded in the variant in which Bionat (20.32 euro/t) and Stimupro (17.26 euro/t) were applied, and within the other variants the benefit was lower than that recorded for the control variant (17.13 euro/t).

Benefit rate recorded values between 17.18-45.48%. The highest levels were recorded in the cases when Bionat (45.48%) and Stimupro (36.16%) had been applied.

**Table 1**

The economic efficiency of the orchardgrass in the first year of production (2002)

<table>
<thead>
<tr>
<th>Specification</th>
<th>Expenses (euro/ha)</th>
<th>Hay average production (t/ha)</th>
<th>Income (euro/ha)</th>
<th>Benefit per surface unit (euro/ha)</th>
<th>Benefit per product unit (euro/t)</th>
<th>Benefit rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control</td>
<td>403.00</td>
<td>8.42</td>
<td>547.30</td>
<td>144.30</td>
<td>17.13</td>
<td>35.80</td>
</tr>
<tr>
<td>Green fuse</td>
<td>448.80</td>
<td>9.17</td>
<td>596.05</td>
<td>147.25</td>
<td>16.05</td>
<td>32.80</td>
</tr>
<tr>
<td>Stimupro</td>
<td>492.17</td>
<td>10.31</td>
<td>670.15</td>
<td>177.98</td>
<td>17.26</td>
<td>36.16</td>
</tr>
<tr>
<td>Agrostemin</td>
<td>460.80</td>
<td>9.48</td>
<td>616.20</td>
<td>155.40</td>
<td>16.39</td>
<td>33.72</td>
</tr>
<tr>
<td>Sea start</td>
<td>482.57</td>
<td>8.70</td>
<td>565.50</td>
<td>82.93</td>
<td>9.53</td>
<td>17.18</td>
</tr>
<tr>
<td>Super plant</td>
<td>461.03</td>
<td>9.29</td>
<td>603.85</td>
<td>142.82</td>
<td>15.37</td>
<td>30.97</td>
</tr>
<tr>
<td>Bionat</td>
<td>466.00</td>
<td>10.43</td>
<td>677.95</td>
<td>211.95</td>
<td>20.32</td>
<td>45.48</td>
</tr>
<tr>
<td>Mega grow</td>
<td>443.73</td>
<td>8.46</td>
<td>549.90</td>
<td>106.17</td>
<td>12.54</td>
<td>23.92</td>
</tr>
</tbody>
</table>

The calculation of economic efficiency made for 2003 show that the benefit per surface unit varies between 190.05-236.65 euro/ha, depending on what biostimulant is applied. The highest benefit per surface unit was recorded in the variant in which Bionat had been applied (236.65 euro/ha), and in the other variants with biostimulant application, the benefit per surface unit obtained in 2003 was lower that that recorded for control variant (230.10 euro/ha). (Table 2)

In each experimental variant with application of growth biostimulants, the benefit per unit of product, and also the benefit rate were lower that the values recorded in the case of the control variant.

After the calculation of the economic efficiency for the production year 2004, we noted that the benefit per surface unit has values between 251.93-346.50 euro/ha, depending on what biostimulant had been used. The
values higher than for control (318.50 euro/ha) were recorded for the experimental values in which we applied Bionat (346.50 euro/ha), Stimupro (339.83 euro/ha), and Agrostemin (325.70 euro/ha). In the other variants, the benefit per surface unit was lower than that recorded for control. (Table 3)

Table 2
The economic efficiency of the orchardgrass in the second year of production (2003)

<table>
<thead>
<tr>
<th>Specification</th>
<th>Expenses (euro/ha)</th>
<th>Hay average production (t/ha)</th>
<th>Income (euro/ha)</th>
<th>Benefit per surface unit (euro/ha)</th>
<th>Benefit per product unit (euro/t)</th>
<th>Benefit rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control</td>
<td>403.00</td>
<td>9.74</td>
<td>633.10</td>
<td>230.10</td>
<td>23.62</td>
<td>57.00</td>
</tr>
<tr>
<td>Green fuse</td>
<td>448.80</td>
<td>10.34</td>
<td>672.10</td>
<td>223.30</td>
<td>21.59</td>
<td>49.75</td>
</tr>
<tr>
<td>Stimupro</td>
<td>492.10</td>
<td>10.95</td>
<td>711.75</td>
<td>219.65</td>
<td>20.05</td>
<td>44.63</td>
</tr>
<tr>
<td>Agrostemin</td>
<td>460.80</td>
<td>10.57</td>
<td>687.05</td>
<td>226.25</td>
<td>21.40</td>
<td>49.09</td>
</tr>
<tr>
<td>Sea start</td>
<td>482.57</td>
<td>10.36</td>
<td>673.40</td>
<td>190.83</td>
<td>18.41</td>
<td>39.54</td>
</tr>
<tr>
<td>Super plant</td>
<td>461.00</td>
<td>10.42</td>
<td>667.30</td>
<td>216.30</td>
<td>20.75</td>
<td>46.91</td>
</tr>
<tr>
<td>Bionat</td>
<td>466.00</td>
<td>10.81</td>
<td>702.65</td>
<td>236.65</td>
<td>21.89</td>
<td>50.78</td>
</tr>
<tr>
<td>Mega grow</td>
<td>443.70</td>
<td>9.75</td>
<td>633.70</td>
<td>190.05</td>
<td>19.49</td>
<td>42.83</td>
</tr>
</tbody>
</table>

In each variant with application of biostimulants, the benefit per unit of product, and also the benefit rate recorded lower values than the control variant. This is due to the higher expenses caused by biostimulant cost and the cost required by their application, and the production growths do not insure an increase of the benefit per unit of product and of the benefit rate.

Table 3
The economic efficiency of the orchardgrass in the third year of production (2004)

<table>
<thead>
<tr>
<th>Specification</th>
<th>Expenses (euro/ha)</th>
<th>Hay average production (t/ha)</th>
<th>Income (euro/ha)</th>
<th>Benefit per surface unit (euro/ha)</th>
<th>Benefit per product unit (euro/t)</th>
<th>Benefit rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control</td>
<td>403.00</td>
<td>11.10</td>
<td>721.50</td>
<td>318.50</td>
<td>28.69</td>
<td>79.03</td>
</tr>
<tr>
<td>Green fuse</td>
<td>448.8</td>
<td>11.60</td>
<td>754.00</td>
<td>305.20</td>
<td>26.31</td>
<td>68.00</td>
</tr>
<tr>
<td>Stimupro</td>
<td>492.17</td>
<td>12.80</td>
<td>832.00</td>
<td>339.83</td>
<td>26.54</td>
<td>69.08</td>
</tr>
<tr>
<td>Agrostemin</td>
<td>460.80</td>
<td>12.10</td>
<td>786.50</td>
<td>325.70</td>
<td>26.91</td>
<td>70.68</td>
</tr>
<tr>
<td>Sea start</td>
<td>482.57</td>
<td>11.30</td>
<td>734.50</td>
<td>251.93</td>
<td>22.29</td>
<td>52.20</td>
</tr>
</tbody>
</table>
The average economic efficiency for the period between 2002-2004 of the experiences carried out on orchardgrass demonstrated that the highest average benefit per unit of surface can be obtained in the experimental variants in which we apply Bionat (264.60 euro/ha), Stimupro (245.65 euro/ha), and Agrostemin (235.35 euro/ha). In the other experimental variants with application of biostimulants, the average benefit per unit of surface was lower than that recorded in the control variant. (Table 4)

**Table 4**
The average economic efficiency of the orchardgrass in the period 2002-2004

<table>
<thead>
<tr>
<th>Specification</th>
<th>Expenses (euro/ha)</th>
<th>Hay average production (t/ha)</th>
<th>Income (euro/ha)</th>
<th>Benefit per surface unit (euro/ha)</th>
<th>Benefit per product unit (euro/t)</th>
<th>Benefit rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control</td>
<td>403.00</td>
<td>9.57</td>
<td>633.75</td>
<td>230.75</td>
<td>23.66</td>
<td>57.25</td>
</tr>
<tr>
<td>Green fuse</td>
<td>448.80</td>
<td>10.37</td>
<td>674.05</td>
<td>225.25</td>
<td>21.72</td>
<td>50.18</td>
</tr>
<tr>
<td>Stimupro</td>
<td>492.10</td>
<td>11.35</td>
<td>737.75</td>
<td>245.65</td>
<td>21.64</td>
<td>49.91</td>
</tr>
<tr>
<td>Agrostemin</td>
<td>460.80</td>
<td>10.71</td>
<td>696.15</td>
<td>235.35</td>
<td>21.97</td>
<td>51.07</td>
</tr>
<tr>
<td>Sea start</td>
<td>482.57</td>
<td>10.12</td>
<td>657.80</td>
<td>175.23</td>
<td>17.31</td>
<td>36.31</td>
</tr>
<tr>
<td>Super plant</td>
<td>461.00</td>
<td>10.37</td>
<td>674.05</td>
<td>213.05</td>
<td>20.54</td>
<td>46.21</td>
</tr>
<tr>
<td>Bionat</td>
<td>466.00</td>
<td>11.24</td>
<td>730.60</td>
<td>264.60</td>
<td>23.54</td>
<td>56.78</td>
</tr>
<tr>
<td>Mega grow</td>
<td>443.70</td>
<td>9.72</td>
<td>631.80</td>
<td>188.10</td>
<td>19.35</td>
<td>42.39</td>
</tr>
</tbody>
</table>

**CONCLUSIONS**

Taking into account the data presented in Table 4, we can conclude that the production growths obtained after the application of biostimulants for orchardgrass do not cover production expenses, excepting variants in which we applied Bionat, Stimupro, and Agrostemin. Analysing the average benefit per unit of product and also the average benefit rate, we observe that they have values lower that control in each experimental variant. (Table 4)
BIBLIOGRAPHY

THE ECONOMIC EFFECT OF THE WHEAT CULTIVATION IN A “COVER CROPS” SYSTEM, INTRODUCING THE ANNUAL FORAGE LEGUME IN ROTATION

EFECTUL ECONOMIC AL CULTIVĂRII GRÂULUI ÎN SISTEM “COVER CROPS” PRIN INTRODUCEREA ÎN ROTAŢIE A LEGUMINOASELOR FURAJERE ANUALE

N. DRAGOMIR*, I. PEŢ*, I. CHEŞA*, ELENA PEŢ**, CARMEN DRAGOMIR*, S. GAŞPAR*, LAURA MIHĂESCU*

The studied forage annual legumes (autumn forage peas and autumn vetch) may enter an agricultural rotation system, which insure a total cover with vegetation for the field (cover crops system), with long-term agro-biological and economic effects upon soil fertility features, environment and future structures of agricultural crops. In the variant wheat – peas harvested for forage – wheat, the cumulated benefit obtained during an agricultural year is between 172,9-336,9 euro/ha, with a benefit rate of 56,5-85,9%. In the variant wheat – peas incorporated – wheat, the cumulated benefit varies between 12,3 – 59,2 euro/ha, with a benefit rate of 3,5-15,1%. In the variant wheat – vetch harvested for forage – wheat, the cumulated benefit is between 120,4-311,8 euro/ha, and the benefit rate is 39,2-79,5%. In the variant wheat – vetch incorporated – wheat, the benefit is 49,2 euro/ha, and the benefit rate is 12,5%

Key words: economic effect, wheat, cover crops

With their agro-biological features, the annual autumn legumes (in our case autumn peas and vetch) may be included in various structures of agricultural crops, facilitating the following aspects: favorable effects upon the productivity of the species within the agricultural rotations; the improvement of the soil physical-chemical and biological features; forage protection during critical periods due to climatic aspects; the insurance of a long standing soil protection (Moga, 1974).

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The protection feature or function (cover crops) that can characterize the annual autumn legumes, if they are cultivated in a certain agricultural system, has a major importance for the development of a durable agriculture. This is because the arable lands would be continuously covered with vegetation (not only 5-6 months per year, when a single species is cultivated on the same surface once a year), limiting the negative influence exerted by climatic factors, soil erosion, polluting agents, etc. (Olaru, 1999; Doucet, 2002; Picu and Sin, 2002; Carlier et al., 1998; Puia et al., 2001).

Our research’s main objective was to establish not only the forage value of some annual autumn legumes, but also to make evident the economic importance of such crops within the new systems of durable agriculture which are going to implement in our country.

**MATERIALS AND METHODS**

The researches were carried out at S.C.D.P. Timișoara, between 2000-2003, on a brown eumesobasic soil, with pH = 5.7, moderate supplied with nutritive substances.

In order to accomplish the objectives proposed, the experimental device took into consideration the next technological variants:

a. **Wheat** (seeded in autumn; it is harvested on the 10\textsuperscript{th} of July, then the land remains uncovered until autumn, when we seed wheat again, or until the next spring)

b. **Wheat + peas harvested for forage + wheat** (the wheat is harvested on the 10\textsuperscript{th} of July; the peas is seeded immediately and then harvested at the beginning of October; then wheat is seeded at the end of October)

c. **Wheat + peas incorporated + wheat** (the wheat is harvested on the 10\textsuperscript{th} of July; the peas is seeded immediately and, one week before the wheat sowing, it is minced and incorporated into the soil, then the wheat is seeded at the end of October)

d. **Wheat + forage vetch + wheat** (the technology is identical to that from 1b)

e. **Wheat + incorporated vetch + wheat** (idem 1d)

All studied variants were fertilized with the following doses of nitrogen (on a general foundation of P50K50): N0, N50, N150. The experience was laid according to the method of the randomized blocks, in
three repetitions, and the results obtained were assessed and interpreted through the variance analysis method.

RESULTS AND DISCUSSION

The introduction into the crop of the autumn forage peas and vetch, sowing them during the spell between the two periods of wheat sowing, transforms the wheat mono-culture in a two year rotation. With this method of cultivation, we can accomplish the next technological variants (Table 1):

1. After that wheat is harvested on the 10-15 of July, the autumn forage peas is seeded immediately (if the conditions are favorable, after the disc tillage, we can carry out the direct sowing). Peas harvest can take place at the end of October for forage, obtaining 15.7 t/ha green mass. After the peas harvest, the land is prepared for wheat. Wheat productions obtained in the next year were: 2116 kg/ha in the unfertilized variant, but which accomplished a growth higher with 28,1% that the wheat cultivated under a mono-culture system, 2524 kg/ha in the case of one dose of N50, and 3381 kg/ha for a dose of N150;

2. In this case, the peas seeded is put into good use through mincing and incorporating the forage mass into soil, followed by wheat sowing. Depending on the fertilization with nitrogen, the production growths obtained for wheat were between 41,3-118,8%;

3. We can also include autumn vetch within this crop structure, because it can be seeded, like peas, immediately (after disc tillage) after wheat harvest, obtaining, until the last part of October, an average forage phyto-mass of 12,4 t/ha green mass, that can be directly used in animal food or in silos. After the harvest of vetch, we sow the wheat which, under experimental conditions and depending on the nitrogen doses applied, gets in the next year production growths between 24,7-102,5%, compared to mono-culture;

- with the atmospheric nitrogen quantities fixed on a symbiotic way, autumn annual legumes (whose results were presented in the above paragraph) contribute directly to the decrease of the nitrogen fertilizer doses applied to the other crops.

This wheat crop system, with the introduction of peas or autumn forage vetch into the rotation, within the same agricultural year, may be
applied in any type of agricultural exploitation on field areas with possibilities for irrigation and on hillocks.

Table 1

The influence of the precursory plant and the nitrogen fertilization upon wheat grain production

<table>
<thead>
<tr>
<th>Precursory plant</th>
<th>Nitrogen doses*</th>
<th>Peas and vetch production (green mass, t/ha)</th>
<th>Wheat grain production**</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Kg/ha</td>
<td>Dif. Kg/ha</td>
</tr>
<tr>
<td>Wheat + wheat</td>
<td>N₀</td>
<td>1651</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>N₅₀</td>
<td>2004</td>
<td>353</td>
</tr>
<tr>
<td></td>
<td>N₁₅₀</td>
<td>3131</td>
<td>1480</td>
</tr>
<tr>
<td>Wheat + peas harvested for forage + wheat</td>
<td>N₀</td>
<td>2116</td>
<td>465</td>
</tr>
<tr>
<td></td>
<td>N₅₀</td>
<td>2524</td>
<td>373</td>
</tr>
<tr>
<td></td>
<td>N₁₅₀</td>
<td>3381</td>
<td>1730</td>
</tr>
<tr>
<td>Wheat + peas incorporated in wheat + wheat</td>
<td>N₀</td>
<td>2334</td>
<td>683</td>
</tr>
<tr>
<td></td>
<td>N₅₀</td>
<td>2780</td>
<td>1129</td>
</tr>
<tr>
<td></td>
<td>N₁₅₀</td>
<td>3614</td>
<td>1963</td>
</tr>
<tr>
<td>Wheat + vetch harvested for forage + wheat</td>
<td>N₀</td>
<td>2059</td>
<td>408</td>
</tr>
<tr>
<td></td>
<td>N₅₀</td>
<td>2446</td>
<td>795</td>
</tr>
<tr>
<td></td>
<td>N₁₅₀</td>
<td>3344</td>
<td>1693</td>
</tr>
<tr>
<td>Wheat + vetch incorporated + wheat</td>
<td>N₀</td>
<td>2225</td>
<td>574</td>
</tr>
<tr>
<td></td>
<td>N₅₀</td>
<td>2666</td>
<td>1015</td>
</tr>
<tr>
<td></td>
<td>N₁₅₀</td>
<td>3534</td>
<td>1883</td>
</tr>
</tbody>
</table>

** DL 5%

* Nitrogen fertilization was accomplished only in the case of wheat.

The results of our researches regarding the economic effect of the wheat crop in a rotation system with autumn peas or vetch, in terms of covering continuously the field with vegetation (cover crops), suggested the conclusion that the highest economic efficiency, compared to the variants seeded in mono-culture, can be obtained seeding peas or vetch (for forage) between the two wheat crops (Table 2).

So, in the system of seeding wheat – peas harvested for forage – wheat, depending on the applied nitrogen doses, we may obtain a cumulated benefit per agricultural year between 172,9-336,9 euro/ha, with a benefit rate between 56,5-85,9%. If we introduce autumn vetch instead of peas, the
cumulated benefit varies between 120.4-311.8 euro/ha, and the benefit rate increases to 39.2-79.5%.

In the case in which the peas or vetch, introduced in the proposed technological system, are put into good use through the incorporation into the soil of the obtained forage biomass, we may obtain higher efficiency indices only for the variants with wheat fertilization with a dose of N150, namely: a benefit rate of 15.1% for peas and 12.5% for vetch.

Table 2

The profitability of a wheat crop after some forage legume species

<table>
<thead>
<tr>
<th>Rotation structure for wheat</th>
<th>Nitrogen doses*</th>
<th>Expenses euro/ha</th>
<th>The value of the obtained production euro/ha</th>
<th>Cumulated benefit euro/ha</th>
<th>Benefit rate %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wheat + wheat</td>
<td>N₀</td>
<td>200.5</td>
<td>206.4</td>
<td>206.4</td>
<td>5.9</td>
</tr>
<tr>
<td></td>
<td>N₅₀</td>
<td>229.1</td>
<td>250.5</td>
<td>250.5</td>
<td>21.4</td>
</tr>
<tr>
<td></td>
<td>N₁₅₀</td>
<td>286.3</td>
<td>391.4</td>
<td>391.4</td>
<td>105.1</td>
</tr>
<tr>
<td>Wheat + peas harvested for forage + wheat</td>
<td>N₀</td>
<td>306.7</td>
<td>479.6</td>
<td>479.6</td>
<td>172.9</td>
</tr>
<tr>
<td></td>
<td>N₅₀</td>
<td>335.2</td>
<td>562.1</td>
<td>562.1</td>
<td>226.9</td>
</tr>
<tr>
<td></td>
<td>N₁₅₀</td>
<td>392.5</td>
<td>729.4</td>
<td>729.4</td>
<td>336.9</td>
</tr>
<tr>
<td>Wheat + peas incorporated + wheat</td>
<td>N₀</td>
<td>306.7</td>
<td>291.7</td>
<td>291.7</td>
<td>-15.0</td>
</tr>
<tr>
<td></td>
<td>N₅₀</td>
<td>335.2</td>
<td>347.5</td>
<td>347.5</td>
<td>12.3</td>
</tr>
<tr>
<td></td>
<td>N₁₅₀</td>
<td>392.5</td>
<td>451.7</td>
<td>451.7</td>
<td>59.2</td>
</tr>
<tr>
<td>Wheat + vetch harvested for forage + wheat</td>
<td>N₀</td>
<td>306.7</td>
<td>427.1</td>
<td>427.1</td>
<td>120.4</td>
</tr>
<tr>
<td></td>
<td>N₅₀</td>
<td>335.2</td>
<td>534.4</td>
<td>534.4</td>
<td>199.2</td>
</tr>
<tr>
<td></td>
<td>N₁₅₀</td>
<td>392.5</td>
<td>704.3</td>
<td>704.3</td>
<td>311.8</td>
</tr>
<tr>
<td>Wheat + vetch incorporated + wheat</td>
<td>N₀</td>
<td>306.7</td>
<td>278.1</td>
<td>278.1</td>
<td>-28.6</td>
</tr>
<tr>
<td></td>
<td>N₅₀</td>
<td>335.2</td>
<td>333.2</td>
<td>333.2</td>
<td>-20.0</td>
</tr>
<tr>
<td></td>
<td>N₁₅₀</td>
<td>392.5</td>
<td>441.7</td>
<td>441.7</td>
<td>49.2</td>
</tr>
</tbody>
</table>

* Fertilization only for wheat.

Prices: **Legumes: 0.0137 euro/kg g.m.

***Wheat: 0.125 euro/kg

CONCLUSIONS

The studied forage annual legumes (autumn forage peas and autumn vetch) may enter an agricultural rotation system, which insure a total cover with vegetation for the field (cover crops system), with long-term agro-
biological and economic effects upon soil fertility features, environment and future structures of agricultural crops;

Within the cover crops system, proposed for wheat crop, we may achieve an important increase of the economic efficiency indices, so:

- In the variant wheat – peas harvested for forage – wheat, the cumulated benefit obtained during an agricultural year is between 172,9-336,9 euro/ha, with a benefit rate of 56,5-85,9%;
- In the variant wheat – peas incorporated – wheat, the cumulated benefit varies between 12,3 – 59,2 euro/ha, with a benefit rate of 3,5-15,1%;
- In the variant wheat – vetch harvested for forage – wheat, the cumulated benefit is between 120,4-311,8 euro/ha, and the benefit rate is 39,2-79,5%;
- In the variant wheat – vetch incorporated – wheat, the benefit is 49,2 euro/ha, and the benefit rate is 12,5% (in the case of a fertilization with N150).

BIBLIOGRAPHY

THE PROFITABILITY OF CULTIVATING SILAGE-MAIZE WITHIN THE “COVER CROPS” AGRICULTURAL SYSTEM

PROFITABILITATEA CULTIVĂRII PORUMBULUI PENTRU SILOZ ÎN SISTEMUL DE AGRICULTURĂ „COVER CROPS”

N. DRAGOMIR*, I. PEȚ*, I. CHEȘA*, ELENA PEȚ**, CARMEN DRAGOMIR*, S. GAȘPAR*, LAURA MIHĂESCU*

Within the proposed crop system – cover crops, the productivity and profitability of the silage maize crop increase, depending on the technological variant. In the case of the classic mono-crop technology, the benefit varies depending on the applied nitrogen doses, between 32.5-132.4 euro/ha, with a benefit rate between 13.6-43.8%. Within the rotation system grain wheat – silage maize, the benefit cumulated in one agricultural year is between 41.1-191.2 euro/ha, with a benefit rate between 23.2-63.4%. In the technological variant within a durable agriculture system silage maize – hungarian vetch – silage maize, we obtained a cumulated benefit between 273.3-393.8 euro/ha and a benefit rate between 94.4-95.1%. - Regarding the technological variant within a durable agriculture system grain wheat – hungarian vetch – silage maize, the cumulated benefit varies between 286.9-443.2 euro/ha, with a benefit rate between 99.3-107.2%.

Key words: profitability, cover crops

In the latter half of the last century, world agriculture achieved a special progress in almost every agricultural geographical area. This development has emphasized starting with the 5th and 6th decades of the 20th century. Then, beside the progress obtained within the researches concerning amelioration and applied genetics (the base of the “green” revolution), the development of a new agricultural system has started, industrial by type, mainly relied upon the intensive use of some industrial synthesis products (fertilizers, pesticides, biostimulants, etc.).

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This agricultural system, with all its performances, has caused a series of problems during time: the limitation of the crop structure; the renouncement to the benefic effects of the agricultural rotation systems; the alteration of the soil trophic relationships, introducing some noxious, polluting substances into the soil; the environmental pollution; the limitation of lands with natural vegetation and the enhancement of the erosion processes. All these aspects, which also have a positive side for mankind, were considered from the very beginning of our century the starting point for an ecological disaster in agriculture, of anthropic nature, if we will not take into consideration some dramatic measures in order to limit the causing factors (Olaru, 1998; Carlier et al., 1998; Triboi, 2002).

From this somber perspective, a new philosophy concerning the economic and social development appeared at the beginning of the ’90s, namely the sustainable development, also known as durable development. Within this new orientation of the humankind progress, the durable agriculture system is focused on the achievement of good results in plant growing and animal breeding, in relationship with the ecological factors (Toncea, 1999).

In this paperwork, we present a new technology of growing silage-maize, under the “cover crops” agricultural system, maintaining the agricultural land covered with vegetation during the whole vegetation period.

MATERIALS AND METHODS

Researches were carried out at S.C.D.P. Timișoara, between 2002-2003, under the conditions of a brown eumesobasic soil, with a pH = 5.7, moderate supplied with nutritive substances.

In order to accomplish the proposed objectives, we studied the following technological variants of growing silage-maize:

a. Silage maize + silage maize (after the harvest of silage maize in the first year, the land remains discovered for 6 months until the next year, when it is seeded again with silage maize – mono-crop system)

b. Silage maize + hungarian vetch + silage maize (the silage maize is harvested until the 20th of September; the hungarian vetch is immediately seeded; then the hungarian vetch is harvested until the 20th of April; silage maize is immediately seeded – “cover crops” Agricultural system during the whole agricultural year)
c. Grain wheat + silage maize (the wheat is harvested on the 10th of July; the next year, we seed the silage maize – classic rotation system for maize, in which the land remains discovered for almost 9 months)

d. Grain wheat + hungarian vetch + silage maize (the wheat is harvested on the 10th of July; the hungarian vetch is seeded on the 10th of September; then it is harvested on the 20th of April; immediately we sow the grain maize – intensive agricultural system, in which the land remains partially discovered, for about 2 months).

Each experimental variant was fertilized with the following nitrogen doses: N0, N100, N200.

The obtained results were statistically assessed and interpreted with the method of variance analysis.

RESULTS AND DISCUSSION

The results obtained after the emphasizing of the different rotation structures for silage maize crop show that, during an agricultural year, depending on the rotation type, the dry matter cumulated production varies between very wide limits, respectively between 3.12-16.48 t/ha (Table 1).

**Table 1**

<table>
<thead>
<tr>
<th>The structure of rotation for silage maize</th>
<th>Nitrogen doses*</th>
<th>The production of the precursory crops</th>
<th>Silage maize production after various precursory crops (DM)</th>
<th>DM production cumulated in an agricultural year (hungarian vetch + silage maize)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Silage maize t/ha</td>
<td>Grain wheat kg/ha</td>
<td>Hungarian vetch t/ha DM</td>
</tr>
<tr>
<td>silage maize + silage maize</td>
<td>N0</td>
<td>3.60</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>N100</td>
<td>6.43</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>N200</td>
<td>9.28</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>silage maize + hungarian vetch* + silage maize</td>
<td>N0</td>
<td>3.60</td>
<td>-</td>
<td>5.72</td>
</tr>
<tr>
<td></td>
<td>N100</td>
<td>6.43</td>
<td>-</td>
<td>5.72</td>
</tr>
<tr>
<td></td>
<td>N200</td>
<td>9.28</td>
<td>-</td>
<td>5.72</td>
</tr>
<tr>
<td>grain wheat + silage maize</td>
<td>N0</td>
<td>-</td>
<td>1872</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>N100</td>
<td>-</td>
<td>2622</td>
<td>-</td>
</tr>
<tr>
<td>grain wheat + hungarian vetch* + silage maize</td>
<td>N0</td>
<td>-</td>
<td>1872</td>
<td>6.30</td>
</tr>
<tr>
<td></td>
<td>N100</td>
<td>-</td>
<td>2622</td>
<td>6.30</td>
</tr>
<tr>
<td></td>
<td>N200</td>
<td>-</td>
<td>3890</td>
<td>6.30</td>
</tr>
</tbody>
</table>

* hungarian vetch + wheat (2:1)

** fertilization only for silage maize
This situation is due also to the different effects, depending on the rotation structure, exerted by the nitrogen doses applied to the silage maize crop. Compared to the mono-crop technological system of the maize crop, where the average production is 3.12 t/ha DM, in the case when we introduce hungarian vetch (based on vetch) into the rotation structure, under conditions of fertilization with nitrogen, the DM cumulated production becomes 10.81 t/ha, respectively 5.09 t/ha DM silage maize and 5.72 t/ha DM hungarian vetch.

Under conditions of fertilization with nitrogen, in doses of N100-200, the DM cumulated production becomes 13.10-16.48 t/ha.

Therefore, the silage maize, compared to the classic variant of cultivation in mono-crop, or after wheat, may also be seeded in such ways:

1. The variant consisted of *silage maize – hungarian vetch – silage maize*, with the following technology: the maize is harvested at the beginning of September, then the land is prepared with the disc and the hungarian vetch is immediately seeded; then, the hungarian vetch is harvested at the end of April, the land is prepared again and then the silage maize is seeded at the beginning of May;

2. In the case of the variant consisted of *wheat – hungarian vetch – silage maize*, the tillage succession is identical to that within the first variant. But in this case, from wheat harvest and until the 20th of July, and then until the middle of September when the hungarian vetch is seeded, the land remains uncovered for about 2 months (but lesser than the mono-crop variant, with 6 months in which the land remains uncovered).

Analyzing the research results presented in Table 2, we may observe that under the conditions within the silage maize mono-crop system the value of the expenses is higher than the value of the obtained production, in the case in which we do not apply nitrogen fertilizers.

The highest profitability increase in the case of the silage maize can be obtained under the conditions in which we introduce hungarian vetch into the rotation structure.

So, depending on the applied nitrogen doses, within the variant consisted of *silage maize – hungarian vetch – silage maize*, the cumulated benefit varies between 273.3-393.8 euro/ha, with a benefit rate of 94.4-95.1%.
### Table 2
The profitability of growing silage maize in a structure of precursory plants with hungarian vetch

<table>
<thead>
<tr>
<th>The rotation structure for silage maize</th>
<th>Nitrogen doses</th>
<th>Expenses euro/ha</th>
<th>DM production value obtained in an agricultural year euro/ha</th>
<th>Cumulated benefit euro/ha</th>
<th>Benefit rate %</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Hungarian vetch**</td>
<td>Silage maize**</td>
<td></td>
</tr>
<tr>
<td></td>
<td>$N_0$</td>
<td>176.2</td>
<td>162.2</td>
<td>162.2</td>
<td>-14.0</td>
</tr>
<tr>
<td></td>
<td>$N_{100}$</td>
<td>238.7</td>
<td>270.9</td>
<td>32.5</td>
<td>13.6</td>
</tr>
<tr>
<td></td>
<td>$N_{200}$</td>
<td>301.2</td>
<td>433.6</td>
<td>132.4</td>
<td>43.8</td>
</tr>
<tr>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>$N_0$</td>
<td>288.7</td>
<td>297.4</td>
<td>264.6</td>
<td>562.0</td>
</tr>
<tr>
<td></td>
<td>$N_{100}$</td>
<td>351.2</td>
<td>297.4</td>
<td>383.7</td>
<td>681.1</td>
</tr>
<tr>
<td></td>
<td>$N_{200}$</td>
<td>413.7</td>
<td>297.4</td>
<td>510.1</td>
<td>807.5</td>
</tr>
<tr>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>$N_0$</td>
<td>176.2</td>
<td>217.3</td>
<td>217.3</td>
<td>41.1</td>
</tr>
<tr>
<td></td>
<td>$N_{100}$</td>
<td>238.7</td>
<td>349.4</td>
<td>649.4</td>
<td>111.0</td>
</tr>
<tr>
<td></td>
<td>$N_{200}$</td>
<td>301.2</td>
<td>492.4</td>
<td>492.4</td>
<td>191.2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>$N_0$</td>
<td>288.7</td>
<td>327.6</td>
<td>248.0</td>
<td>575.6</td>
</tr>
<tr>
<td></td>
<td>$N_{100}$</td>
<td>351.2</td>
<td>327.6</td>
<td>378.5</td>
<td>706.1</td>
</tr>
<tr>
<td></td>
<td>$N_{200}$</td>
<td>413.7</td>
<td>327.6</td>
<td>529.3</td>
<td>856.9</td>
</tr>
</tbody>
</table>

* hungarian vetch: autumn vetch + wheat (2:1)
* sale price: 0.052 euro/kg DM

In the case of the variant with the rotation structure consisted of wheat – hungarian vetch – silage maize, we can obtain the highest profitability, respectively an annual cumulated benefit between 286.9-443.2 euro/ha and a benefit rate of 99.3-107.2%.

**CONCLUSIONS**

Within the classic rotation succession for maize, in an agricultural year, the land does not remain covered with vegetation for almost 6 months, a period in which the soil is submitted to some negative influences which decrease its fertility, enhance the weeding degree and pest and disease multiplication, intensify the erosion phenomena on sloping land, etc.;

Within the proposed crop system – **cover crops**, the productivity and profitability of the silage maize crop increase, depending on the technological variant;
In the case of the classic mono-crop technology, the benefit varies depending on the applied nitrogen doses, between 32.5-132.4 euro/ha, with a benefit rate between 13.6-43.8%.

Within the rotation system grain wheat – silage maize, the benefit cumulated in one agricultural year is between 41.1-191.2 euro/ha, with a benefit rate between 23.2-63.4%.

In the technological variant within a durable agriculture system silage maize – hungarian vetch – silage maize, we obtained a cumulated benefit between 273.3-393.8 euro/ha and a benefit rate between 94.4-95.1%.

Regarding the technological variant within a durable agriculture system grain wheat – hungarian vetch – silage maize, the cumulated benefit varies between 286.9-443.2 euro/ha, with a benefit rate between 99.3-107.2%.

BIBLIOGRAPHY

ON THE INSURANCE SYSTEM IN ROMANIAN AGRICULTURE

SISTEMUL ASIGURĂRIILOR ÎN AGRICULTURA ROMÂNEASCĂ

FLORENTINA ŞTEFAN*, T. MATEOC**

The necessity of improving the insurance system in Romania’s agriculture is a major objective of national interest, as it is only in this way that we can eliminate the negative effects engendered by risks in agriculture and we can resume the agricultural production process with favourable effects on the development of this sector.

Key words: insurance, re-insurance, insurance companies, agriculture

In agriculture, crops can be insured against hail, frost, land sliding, etc. We can also insure livestock, tractors and agricultural equipment, animal breeding equipment, processing and industrialising equipment, buildings, other assets, as well as people.

Nowadays, in Romania, agricultural insurance are only accessible to agricultural firms and to some agricultural producers that get large crops. These insurance are the more necessary the more frequent natural calamities have been these last years, that have so seriously damaged crops.

Starting from this last reality, we intend to assess in this doctoral thesis the real facts of insurance in Romania in general and in agricultural in particular. We have also monitored some aspects linked to the role of the state in insurance activities, the development of insurance market seen as an emerging market, and the way the Community acquis has been implemented on this market. We have also analysed from a technical point of view agricultural insurance with their two branches – insuring crops and insuring livestock. A sensitive aspect in agricultural insurance – where the number of

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insured people is still small – is that of how large the amount to be paid by insured people can be so that it keeps being attractive in the interest of insurance. This is why we made some attractive calculus and simulated the assessment of the main components of the insurance premium, i.e. the net premium and the added value.

Finally, on the ground of what we present below, we make a few suggestions concerning the increase of the efficiency of insurance companies and the improving of management in agricultural insurance.

The main steps and conclusions of our doctoral research are presented below.

According to the legislation in effect in Romania, several entities can develop insurance activities, as follows:

1. Romanian legal persons, representing insurance and/or mutual aid companies, licensed by the Survey Commission, according to a legal procedure.

2. The branches of some insurance or reinsurance companies of the member nations developing insurance activities in Romania in accordance with the right of settling and with the freedom of selling services.

3. Branches and/or subsidiaries of some insurance and/or reinsurance companies of third states licensed in accordance with the law by the Survey Commission of Insurance.

Beside these organisational structures, there is on the insurance market an institution of insurance brokers which, in case there is no direct relationship between the insured and the insurer, it is the brokers who intermediate the link between the parts. The insurance broker provides counselling for the insured and concludes the insurance normally as an agent of the insured, but he is paid as a rule a commission by the insurer.

Insurance intermediaries represent a necessity on the insurance market whose professionalism depends on the quality of the insuring act and on the perception of the insured of the protection through insurance.

One can see a setting of the serious operators on the market due to the filters constituted by the stipulations of the Law 32/2000 by the Survey Commission in Insurance. If the old legislation allowed insurance companies under the form of limited liability companies, after having applied the Law 32/2000 the situation has radically changed. We consider that this is a positive sign showing that insurance have finally taken the right direction in Romania. At present, the mechanism of establishing insurance
companies is as follows: commercial joint-stock companies or mutual insurance companies registered only after the acknowledgement of the Survey Commission in Insurance which can be obtained within 4 months after application. The license depends on a series of conditions to be met with (a study of feasibility, a subscribed social capital and transferred depending on the insurance line to be practiced, a viable reinsurance programme, actuarial calculus in specific life insurance, object of activity – it is only the insurance and the name of the company that do not confound the public). Licensing does not guarantee the operating licence in insurance, but it allows shareholders to proceed to the legal registering of the company. Within 6 months, the applicant provides the documents for the Survey Commission in Insurance so that it can decide on the final operating licence within 60 days.

As for the European directives in the matter, three generations of directives have been developed, that we present in detail in this thesis.

We can definitely state the following: compared to the liberalising of other components of service trade, progress in the field of insurance has been slow and sometimes insufficient. The process of harmonising national legislations proved sometimes to be particularly complex and difficult, contrary to everybody’s expectations: will do not have yet reached the initial programme as member nations have given up with great difficulty traditional practices in favour of new measures. Nevertheless, the third generation of directives managed to greatly complete and compensate lacks, sometimes inherent, of applying European stipulations. Some discriminatory treatments led more or less to limitations of insurance offers. Thus, as we have shown below, at the time, France, Greece, Ireland, Italy, Portugal, and Spain forbade direct insurance concluded by insurers that did not own companies or branches in these countries; Denmark, Germany, and Luxembourg allowed direct business with foreign insurance companies, with no intervention from intermediaries; in exchange, Holland, Great Britain, and Belgium enforced no restrictions concerning foreign insurers. These differences, a result of economic and cultural practices, ask for solutions of rapid harmonising of the nations’ attitude.

As for reinsurance, regulations have been less heterogeneous, due to the high degree of internationalising of the market and of its specific mechanisms. The only differences are in surveying reinsurance, in technical
reserves, and in premium and damage deposits.

Existing Community directives in effect as part of the Unique Market Programme accelerated the process of harmonisation in the field of insurance and reinsurance. Applying them at the level of member nations influenced the climate of competitiveness at the European level. The effect of changes in the field of insurance and reinsurance is linked to the fact that they will have a decisive contribution to the evolution of the whole European economic life, such as: stimulating competition, using the best practices, expanding internationally, increasing intra-Community trade of insurance services, and developing insurance and reinsurance sectors. As we could see, insurance have been subjected to a larger number of regulations, due to the diversity of fields, risks, national policies and firm strategies; compared to this, reinsurance has not been confronted to major changes of legislation in the development of a unique market but, due to their nature, they adapt easily, meeting economic requests at the European level.

Insurance and reinsurance companies have met the needs of a larger and larger number of clients in all Community countries. Unique licenses for the insurance of mass risks, elimination of barriers by harmonising legislation, and applying directives for life insurance, particularly in the countries in Southern Europe, where the market is still underdeveloped compared to the other Community countries has contributed to the speeding of liberalising insurance and reinsurance services.

Thus, physical or legal persons conclude insurance and reinsurance transactions everywhere in Europe, according to the same laws and under the same conditions. This shall result in a beneficial effect and facilitate brokers’ activity who develop or consolidate their pan-European distribution network to promptly and efficiently satisfy clients’ demands, no matter the country in Europe. They have also developed specific strategies of expanding their activity to become more competitive in the confrontation with intermediaries from powerful non-European market intermediaries. The use of the new telecommunication technology, of the Internet, the offer of high or even perfect quality services contribute to their being chosen by clients maybe for the same price as that of the insurance.

Many insurance, reinsurance, and brokerage companies are permanently developing their technology to raise the competitiveness
threshold, and are looking for new markets on which to put into practice their expertise and professionalism, particularly in the countries of Central and Eastern Europe, promoting a personnel policy by hiring people that know the customs and practices of the different countries in Europe, that speak foreign languages, that know the traditions and customs of the nations members of the EU, thus preparing for the integration in the mechanism and the functioning system of the Unique European Market.

Far from being neglected, the idea of establishing companies based on native and foreign (joint ventures) capital with the participation of companies in the EU or from other countries.

Putting into practice these desiderata and measures does not only mean they are all successful and that there can be no disillusion.

Starting with 1990, Romania has been developing the premises for a competitive market in the field of insurance. The state monopoly was gradually replaced by insurance companies with native or mixed private capital. In the last 15 years, some prestigious insurance companies from Holland, Great Britain, Austria, Germany, Greece, and the U.S.A. have also opened subsidiaries in Romania.

As for the number of insurance companies, at the beginning of the year 2000, on the background of a permissive legislation in Romania, there were 73 insurance companies, of which many were not active. With the application of the Law 32/2000 concerning insurance companies and insurance survey, which asked for minimal parameters concerning the legal solvency margin, the increase of the social capital necessary for the establishment and functioning of an insurer, the constitution of premium technical reserves, the existence of a satisfactory reinsurance programme, things have changed on the Romanian insurance market. There were also the first failures on the market. This is the case for the companies Metropol and Grup S.A.; other companies have had solvency and assessment problems, so that, to keep operating, they had to merge with other more powerful companies or to withdraw from the market. One can say that there was a “maturing of the Romanian insurance market with the consolidation of some serious operators as a result of the restrictions by the Law 32/2000”.

An important role in the well functioning of insurance market was played by the Survey Commission in Insurance, the central monitoring authority surveying the insurance market.
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INVolVEMENT OF THE STATE AS AN INSUReR IN AGRICULTURE

IMPLICAREA STATULUI ÎN CALITATE DE ASIGURĂTOR ÎN AGRICULTURĂ

FLORENTINA ȘTEFAN*, T. MATEOC**

Insurance activity is, by its nature, an economic activity in which risk is involved in a larger measure than in other activities. The economic function of an insurer is to take risks that an individual or a legal person cannot take.
The development trends of rural economy should take into account, first of all, measures for the economic raise of agricultural production, together with measures of development of non-agricultural activities in the country side.

Key words: insurance, re-insurance, involvement, state, agriculture

The main objectives of regulating insurance activities are: maintaining insurer solvency, protecting policy owners, and avoiding disloyal competition. By regulating insurance at a state level, we have in mind: establishing proper and equitable premium quotas; guaranteeing insurance availability and accessibility; applying insurance laws; informing the public on insurance.

These objectives are not always complementary.
The fields of regulation in insurance include: establishing and licensing insurers; licensing insurers’ representatives; regulating solvency; regulating premium quotas; regulating contracts and market policy.

Regulating insurance is not wholly on state charge.
Secondly, the state can have an active operating role on the insurance market for the risks mentioned above, which ordinary insurers exclude.

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In a wider context, insurance types that governmental insurers offer at present can be classified as follows: social insurance; asset insurance and civil responsibility; financial assistance insurance.

Full involvement of the state as an insurer in agriculture debuted in the summer of 2002, when Romania’s Government, becoming aware of the importance of getting involved in supporting the agricultural sector in our country, issued Law 381/2002 concerning the payment of damage from natural calamity in agriculture.

They consider natural calamity the following: quantitative and qualitative loses of crops, death rate and/or slaughter of livestock from destructive manifestation of natural phenomena and of disease on large areas.

Natural phenomena and disease resulting in natural calamity are: excessive, time-persisting drought affecting non-irrigated lands, floods from rivers or other water courses and dam breaking, abundant and long-lasting rainfalls, excessively low temperatures below the plants’ biological resistance, thickness of snow layer resulting in damage in the vegetal and animal sectors, sudden melting of snows resulting in floods, overflow from rivers and puddling, hurricane, as well as other disaster and calamity over large areas.

Nominating and ranging within disease resulting in natural calamity implants and animals is done by the Ministry of Agriculture, Food, and Forests, and is acknowledged by a Government’s Decision.

Payment of damage to agricultural producers be they physical or legal persons, for natural calamity by natural phenomena and disease resulting in calamity is done only for agricultural crops, livestock, and poultry insured by insurance companies.

Agricultural producers, be they physical or legal persons that buy insurance policies from insurance companies acknowledged by the Ministry of Agriculture benefit from a support for their insurance premiums. The amounts thus constituted are used for: liquid compensations for agricultural producers that have suffered from damage by natural phenomena and disease (epizooty) resulting in natural calamity; subsidies for insurance premiums (of 20%) for risk factors insured for agricultural crops, livestock, poultry, bee families, and fish, nominated by Minister’s Order.

Administering, using, and managing the compensations for agricultural producers is done by the Ministry of Agriculture.
Compensations are allowed to agricultural producers in the following conditions: for agricultural crops and plantations affected by natural calamity, only for damage over 30% of the production, the maximum level being of 70% of the expenses by the time the phenomenon occurred; for livestock, poultry, bee families, and fish, the compensation is about 80% of the insurance value, diminished with the value of the by-products thus resulted, that can be marketed in accordance with legal stipulations.

In the last part of this doctoral thesis, we present the main indices of assessment of insurance activity efficiency, as well as the opportunities for the perfecting of the management of agricultural insurance.

We think that insurance companies in the field of agricultural insurance also have some weak points. Among them:

1) a under-sized territorial network for the needs of broadening insurance service range;
2) an uncompleted informational system;
3) a limited autonomy of subsidiaries;
4) an insufficient motivation of the personnel;
5) an improper age average;
6) a limited training of the personnel in the territory, which is an inconvenient in promoting new products;
7) very limited advertising campaigns.

In this respect, we think that insurance companies on the agricultural insurance market should take the following managerial measures:

1) increasing the social capital, both by increasing the capital of the present share-holders and by attracting Romanian or foreign investors;
2) merging insurance companies in order to consolidate their position on the market;
3) expanding the object of their activity by broadening the insurance range;
4) taking more risks in insuring – such as drought – as well as the possibility for an insured person of insuring one, two, or more risks;
5) entering a partnership with the state in taking calamity risks such as winter frost, floods, and drought, risks that propagate on large areas and are quite intense;
6) increasing the insurance funds; 
7) reinsuring with other prestigious companies for the overtaking of some of the responsibilities. 

As for organisational measures, we consider that they should: 
a) develop the informatics and informational systems; 
b) broaden the agent network. 

The objectives of the strategy of development of insurance companies in the field of agricultural insurance should be, in our opinion, as follows: 
a) short-term: cutting down the ascending trend of the annual business profit of the companies; 
b) medium-term: covering a segment of the market of agricultural insurance corresponding to the stage of development, equipment, expertise, and prestige of the company and, last but not least, a higher satisfaction of the clients’ needs. 

The development of the rural area cannot be conceived without a performing and sustainable agriculture. 

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